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OF
MEDICINE AND SURGERY

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF
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J. J. CASSIDY, M.D., EDITOR.

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VOL. XIV.

TORONTO, JULY, 1903.

NO. 1.

Original Contributions.

PRESIDENT'S ADDRESS.*

BY J. C. MITCHELL, M.D.,
Asylum Service, Toronto.

Gentlemen of the Ontario Medical Association,—To have been deemed worthy of the most exalted position within the province of this Society to grant is indeed an honor. The opportunity, however, to prove whether or not such virtue lies within me demands warmer expression of thanks, more zealous and untiring service from its recipient in order that the unblemished name and history of this Association may still stand for all that is worthy and of good report in our work. For both the kindly thought and the opportunity then, I desire to again express my thanks to the Medical Association of Ontario.

Permit me also to gratefully express my keen appreciation of the wisdom displayed in the selection of the executive. Surely no general ever had more faithful, earnest officers than were elected to support the hands of your President this year. To them, if there be success attending this meeting, let there be ascribed whatever of honor is associated in your minds with the successful carrying out of the general idea and the details of this meeting; theirs has been the tilling and sowing with the labor late and early, that to you may come the full measure of reward for your faithfulness to this old Society which has meant much to many of us during the past years.

And now once again the President and officers greet the members and friends of this Association, and desire to make their greeting warmer and more full of friendship than ever before, for

* Delivered at meeting of the Ontario Medical Association, Toronto, June 16th, 1903.

has not our sympathy been mellowing and ripening during another year, short though it may seem? And not alone the old members do we greet with gladness, but the new, and those who come to us as welcome guests. I utterly fail to grasp the true sentiment of the profession here if your visit at this time does not make you feel how glad we are to have you as our guests, and how anxious we are that this brief period of relaxation, from your onerous professional duties may be one of the most pleasant and profitable you have ever spent.

This province, though young in years, has for the greater part of its life taken a prominent place in educational matters. Our Public School system, growing out of that established by that wise educationist, Dr. Egerton Ryerson, is one of which we are justly proud, and yet it has its faults. A few years ago Dr. Ferguson, of London, read a paper before the Association pointing out the injury occasioned to our growing youth by the present system of determining promotion by the results of written examinations. He showed how a very large amount of the work done was simply cramming for examination, and not true education; that a great many children and young people were severely injured in health from the unwise but unavoidable competition under the system.

At last freedom and better order are making their appearance. The Hon. R. Harcourt, Minister of Education, has brought in a bill this session making changes as far as city schools are concerned, and he proposes discussing more radical changes with a committee appointed at the Ontario Teachers' Association, so as to enlarge its scope next year to apply to all the Public Schools of the Province, thus making our system more educative and less competitive by combining with it manual training and eliminating many of the examinations. Our pupils will not then be under so great a mental strain, and will have better opportunities to mature and make the healthy men and women this country requires for the great future it has before it. Truly we can get along with fewer neurasthenics, neurotics and cranks than we have at present. We welcome the evidence of progressive thought and interest in the welfare of our youth on the part of the Government.

We congratulate the Medical Schools of the Province on the good work they are doing. Our graduates compare most favorably with those of similar length of training wherever they may hail from—men going from our schools having that within "which maketh them not ashamed"—notwithstanding the immense endowments of many of the wealthy colleges elsewhere on the continent. The rapid changes and development in both medicine and surgery will soon require a longer and more extensive course than at present, and we can confidently depend upon the Ontario Medical Council keeping up the standard required to meet the exigencies of the time. We can also trust the efficient staff of each of our medi-

cal colleges to make the clinical teaching keep pace with the large amount of work now required in the laboratory, so that our graduates may be as skilled in their observation of symptoms as they are in chemical and microscopic analysis.

We are glad to note the ever-increasing number of our practitioners who are spending a greater or lesser length of time in post-graduate work. Has not the time arrived for the establishment of a post-graduate course in Toronto? We have physicians as well-instructed in scientific medicine, and surgeons who operate as skilfully as can be found anywhere. Our hospitals, too, have increased in number and importance so that plenty of material could be at hand. A staff formed by the union of our best men to give a post-graduate course could not fail to be of benefit to the Province, and afford opportunities for advanced study to many who could not, and to many who should not be allowed to go elsewhere.

We are glad to notice the increased number of hospitals throughout Ontario. It means a great deal to the afflicted, and particularly to those of limited means. It will give our local surgeons and practitioners a chance to do much better work, and to obtain vastly better results from the improved regime possible in a more general use of the hospital. We trust it will not be many years until every town in Ontario will have its hospital.

We congratulate Lady Minto on her success in the establishment of cottage hospitals, and feel sure she will be rewarded for her labors in this direction by the benefit obtained by those afflicted ones who will receive care and treatment therein.

In our city hospitals I would endorse what our immediate past President, Dr. Powell, proposed last year, that the term of the house surgeon should be extended to at least eighteen months, and so arranged that only half the staff be relieved at one time, so that skilled and expert men may be always in attendance. In this way a new appointee would not occupy a responsible position until trained for it, and a skilled anesthetist would always be available.

In Provincial legislation the only matter of special note is the regulation adopted by the Provincial Board of Health on February 12th last, *re* Scarlet Fever. It has occasioned a great deal of adverse criticism, and it is questionable if the order for removal to either isolation hospital or tent is practicable at all seasons of the year either in congested communities or rural districts, and unless the attending physician has some voice in the matter it is not likely this law will be productive of good.

As for the Dominion House, Dr. Roddick succeeded in getting an Act passed, providing for the establishment of a Dominion Medical Council with full power to hold examinations in medicine and grant licenses valid in any portion of the Dominion. This Council can only become constituted when all the Provinces have accepted the provisions of the Act. With the exception of Quebec

all have enacted such legislation as to make the Act effective. The Legislature of the Province of Quebec, however, defeated the bill introduced for the purpose, rendering the bill inoperative. The reason for this action was that under the present Provincial Act Quebec graduates in McGill, Bishop's and Laval Universities, who have passed four years in their studies and obtained their degree are entitled, without further examination, to obtain a license to practise medicine in that Province. Graduates of the Manitoba University also require but four years, whereas, in Ontario, as we all know, a fifth year has to be spent before the candidate can go up for his final examination before the Council.

Dr. Roddick's bill, had it been accepted, would have placed students in all the Provinces upon the same footing, and having passed the examination of the Dominion Council the successful candidate would then have possessed a license entitling him to practise anywhere in Canada. The series of amendments to the Act suggested to render it acceptable to Quebec would be so manifestly unfair to Ontario that we of this Province could never accept them. It would appear, therefore, that inter-Provincial legislation is dead for the time being unless Quebec is willing to rescind its action of the past session and, like Manitoba, unselfishly place itself on the equal and advanced footing of the other Provinces. Dr. Roddick, however, has still hopes, and writes to say that "Considering that four of the Provinces have completed the concurrent legislation necessary, I am not disposed to give up the fight." He is now asking the Parliament to amend the Dominion Registration Act so as to permit the Provinces that favor it to begin at once the work of such registration. The doctor certainly deserves great credit for the vigorous fight he has put up, and we earnestly hope he may be successful in his efforts.

The need for, and importance of, the continuous education of the public on the lines of public health and prophylaxis is well illustrated by the formation of an anti-vaccination society in this city. At some of the meetings of this society this year, some practising physicians made statements (or were reported to have made them, according to daily papers April 10th) so wide of the truth that they showed a most lamentable ignorance of the whole history of the subject. When we find the very commendable action for the enforcement of vaccination questioned by one of our own profession by the bringing in of a law at the late session of the Legislature for the repeal of said enactment, it is certainly time to look into the matter and ventilate it as thoroughly as possible.

We believe with Dr. Ridpath that: "Essential freedom is the right to differ, and that right must be sacredly respected, nor must the privilege of dissent be conceded with coldness or disdain, but openly, cordially and with good-will. No loss of rank abatement of character or ostracism from society must darken the pathway of

the humblest, honest seeker after truth. The right of free thought, free enquiry and free speech to all everywhere is as clear as the noonday and bounteous as the air and the sea."

If all professed seekers after truth were only honest in their views we could have no quarrel with them, even though we might differ in the result of our investigations. Some talk loudly on these subjects simply for effect, and are not honest in their statements, but desirous to achieve notoriety. Others talk through ignorance, having never taken either the time or labor to obtain for themselves the facts of the case. Then added to these classes we have the cranks and bores who will have a word in any way, even if it be but to repeat again and again some set speech.

At the same time it is the duty of the medical profession to continue to do as they have done in the past, ascertain all the facts in the case, study out the underlying truths and put them so far as we can in the possession of the public. We must, so far as in us lies, continue to protect the public from themselves even though we may often be called hard names and lie under the charge that we are working with interested motives. On the contrary we have motives of the very highest and noblest character; viz., the best interest of humanity; the desire to have justice done to the poorest and humblest who have not the means of protecting themselves from the scourges (such as smallpox, etc.), that may devastate and destroy countless numbers as in the past. Smallpox from being a dreaded scourge has become a disease seldom seen, and its increased prevalence during past few years may well be ascribed to our increasing carelessness in vaccination.

Unless we are occasionally wakened up by an epidemic the tendency to neglect all forms of safeguarding ourselves grows upon us and we do not like to take the trouble to render ourselves safe. It is difficult to convince people who have never seen the ravages of smallpox that it is an essential thing that their children should be vaccinated (and run the chances of a few days' illness or a very sore arm) for the sake of being prepared for an evil that is unknown to them and, therefore, entirely unappreciated. There certainly have been evils in connection with vaccination, but what are the very worst of those compared to an epidemic of true smallpox in an unvaccinated neighborhood? It would be safe to pay no attention to these anti-vaccinationists, and class them in with the followers of Christian Science, the Dowieites, Vitosophists, Osteopaths, etc., were they not such a menace by reason of their position as guardians of the public health. We see very many apparently sensible people led off by these fads, so it becomes our duty to impart to them all the knowledge we can on these important questions of health and disease, and particularly along the line of preventive medicine.

Germany has possibly the most compulsory system of vaccina-

tion in the known world, and the result is that smallpox is almost vanished from the empire. In 1899 with a population of 54,000,900 there were only twenty-eight deaths, and these nearly all came in from an adjoining country.

If we consider the duty of the true physician is to stand by all measures that tend to promote health and prevent disease there should be some way of punishing those doctors who encourage the laity in their foolishness in combating the laws which are intended for their own best interest. Such action is certainly reprehensible, and it is hard to believe physicians of any school could be guilty of talking such "utter nonsense" as was attributed to them at one of their anti-vaccination meetings. It is highly probable that Dr. Comtilman's great discovery of the gerin that causes smallpox will assist us in a short time to a better understanding of the rationale of vaccination.

Two years ago the then President, Dr. McKinnon, referred to the great and often serious delay there was in gaining admission to our asylums for cases of acute mania, particularly with those at a distance. This need never occur at present time with our long-distance telephone facilities if our physicians are only careful enough to supply sufficient information. In all our asylums the superintendents are anxious to take in and look after this class of cases, and if applying physicians will but send full particulars setting forth the urgency of the case complete papers for admission will be sent on at once. Asylum authorities, as a rule, send the history or application paper to fill up first, and then if the case is a suitable one and they can still make room the patient is admitted. A great many senile cases are sent into asylums which could be looked after all right in their own home.

It is a matter of deep regret that so many insane people are sent to gaol without first making application to our asylums to see if such cannot be admitted at once. In the past year, of all the insane that have been sent into Toronto gaol (and there has been a large number), in only four cases was Toronto asylum asked to admit the patient previous to arrest, and in all of these cases (with one exception, due to overcrowding), although we sent the complete set of papers immediately on application, an arrest was made before the papers reached them when there was really no necessity for this precipitancy. Our physicians have a large measure of responsibility in this matter, and they should try and prevent any case of insanity being sent to the gaol unless there is absolutely no room for them in the asylums, as is sometimes the case. A change also should be made in the law so that two medical certificates should transfer a patient from gaol to the asylum, as it does from outside. In this way prompt action could be taken as against the complex procedure which at present exists. We are glad to note that the Provincial Secretary, Hon. J. R. Stratton, has

introduced and passed an Act the past session making it compulsory for all counties to erect and help to sustain County Refuge Homes, one in each county or united counties. If these homes were in every county our asylums could in time be unloaded of all the chronic harmless demented, and leave space for those amenable to treatment or who are a menace to the public or themselves. So much can be accomplished by proper treatment, and so many apparently hopeless patients restored to normal or almost normal conditions that it is certainly very sad that all the deranged cannot obtain a fair chance for recovery. We are overcrowded by a class of patients that would be quite safe elsewhere.

If county homes would take harmless demented, and the majority of the senile cases, it would leave room for the immediate admission of all acute cases, and give opportunity for the better classification and arranging of those under treatment. It would also, if properly looked after, lessen the arrests for insanity, and shorten the period of their confinement in gaol when arrested. It would be well to see the name asylum done away with, and the term hospital substituted. An asylum simply indicates a place of refuge, while the term hospital would educate the public to understand that it is an institution for cure.

The medical profession should educate the public as to the dire results of heredity by misalliances, which populate the country with degenerates, a large number of whom afterwards gravitate to the asylums. They also have a very wide field in the way of preventive treatment of children with a tainted line or lines of ancestry. Much more can be done than is commonly thought to ward off impending future evils by early attention to the mental and physical evolution of such children.

The officers and active friends of the Ontario Medical Library Association have made strenuous efforts the past few months to place the library on a more sound financial basis. There has been a movement on foot to enable the board to purchase or erect a suitable building in which to store the books, and in which the several medical societies in the city can hold their regular meetings. At the last annual meeting, held on June 10th, handsome subscriptions for this purpose were reported by the Trust Committee. Including \$4,600 from Prof. Osler, the amount subscribed by the profession is upwards of \$3,600. In addition, between five and six thousand dollars have already been promised by a few public-spirited gentlemen who have the interests of the library at heart. The members of the profession have not as yet been all canvassed. The board feel very much encouraged in their efforts, and hope soon to be able to report further progress, and that the long-felt want will soon be a reality.

Now, that the amalgamation of the Universities of Trinity and Toronto seems to be assured, there is greater unanimity than ever

among the friends of the library. The feeling is that we should have a large central building, which could be used for meetings such as this, in fact, a place where each medical man in the city and Province could feel that he had a home. For the present they still occupy rooms in the upper floor of the Medical Council Building, which have been provided for them by that body for a number of years. The board wish to convey their thanks to the members of the Ontario Medical Council and Ontario Medical Association, and the numerous private individuals who have generously contributed to the support of the library. The books on the shelves are now catalogued, and members of this Association are requested to take a copy of the catalogue with them, and if they wish to have a book sent them that can be done simply by mailing a card to the assistant librarian and paying express charges. It will be noted that in order to make the library self-sustaining as far as possible, the annual fee of \$2.00 has been raised to \$5.00.

At Gravenhurst, the National Sanitarium Association are continuing the excellent work for consumptive patients of our Province and of the Dominion. A free hospital has been provided at a cost of \$40,000 for the treatment of those who are really unable to care for themselves, as well as for those who are able to pay but a portion of the expense for their care. No patient has been turned away, providing he was medically considered fit to undergo the treatment there. So that all cases of incipient phthisis, the poorest as well as the richest, have thus a door opened to them which has in many cases proved a door of salvation. An effort is being made to induce the Government to make a grant of \$20,000 towards the latter institution, and we cannot conceive of a more legitimate demand on the part of the people for an apportionment of the people's money than one to this cause. It is greatly to be desired that both the public and the profession examine more thoroughly the work carried on, so that all may be more interested in what has proved to be one of the most worthy of our Province. One of the greatest bars to the successful prosecution of the work from the professional aspect is the failure on the part of the profession to secure an early diagnosis of the condition of a patient. How long will it be necessary for this Association to call attention to this fact? Happily our minds are slowly awakening to it, though our rising is but slow. The fault is not entirely with ourselves but also largely belongs to the careless public. As for ourselves, let there be no longer any taint upon our skirts, no partial and unsatisfactory examination of patients, no longer let the ready cough mixture take the place of scientific treatment preceded by systematic and minute analysis of symptoms. To-day with the enlightenment abroad in the world it is for every practitioner to enjoy the privileges made possible by the indefatigable workers along these lines. One of the greatest advantages that results to the patients

undergoing treatment at Gravenhurst is the knowledge he acquired as to how to live so that he may prolong his own life and care for as well as teach others how to live.

Although the religious periodicals of Ontario have greatly improved in their character, in the medical advertisements published during the past few years, they might go still further and copy the example set this year by one denomination in the United States. The agent having charge of all the advertising in the Methodist periodicals for the whole of the United States has definitely announced that no quack medical advertisement of any kind will be accepted this year. Many of these advertisements are not only very inmodest, but have an extremely debasing and immoral tendency, and many things are advertised to be used for immoral purposes, but worded in such a way as to keep the advertiser safe from the law, as they admit of a double meaning.

Our public press panders to this kind of thing, and many of the advertisements in our daily papers are simply disgraceful and not decent enough to be introduced into a respectable home. Apart from this they are all intended to gull the public. Take, for example, the wonderful cures by "The great Dr. Bluff," of Boston, the electric belts, Peruvian syrup and scores of other fakes of that class. People who have led immoral lives, chronic sufferers and the weak-minded generally, are led away by the wonderful results promised in this misleading twaddle. They think there can be some miraculous change performed by these quack remedies, and they will be restored to health and still go ahead and violate nature's laws in any and every particular.

It is time that our leading journals freed themselves from this prostitution and published clean sheets that have for their object the building up and amelioration of man's condition. Our medical men themselves, we are sorry to admit, are not always free from dabbling with quack remedies, and it is not to be wondered at when some of the medical journals, to the south of us, advertise medicines which are on the border line of quackery, as freely as they do. If we want to retain our own self-respect, and the respect of our professional brethren, we must stand by legitimate medicine. "Prove all things, hold fast that which is good."

We cannot close without referring to some of the events which have occurred during the year, bringing sadness to all our minds. The rider of the Pale Horse has been busy counting up his roll of victims. We see emblazoned upon the marble shields of his hosts an ever-increasing number of names of good soldiers that have been overcome while battling "strong and true." We who are thrown into the posts of danger and the vanguard of the forces must yield our quota of losses—for the inexorable law promulgated in the beginning of time may not be set aside. Though our warfare must always end in defeat until that great day when a new

heaven and a new earth appear and the weapons of our warfare are laid aside, yet we battle on, proud in our strife, because of the glorious possibilities which lie before all seekers after truth. Every true physician desires but to say at last, "I have fought a good fight; I have finished my course," for though the sword of the King of Terror strike us from our places, yet does it but cut the latch which lightly closes the gateway to the eternal.

Ontario this year has a long roll of names of those who have gone up from the battle. Of these, perhaps, the most familiar to us all are those of Spencer, Gordon and Horsey—the first two because of their long connection with the two medical colleges in which they did faithful work, and also because of the active interest they took in this Association; the latter because of the important position he filled, and seemed destined to enlarge in the political life of the Dominion.

The kindly reference to the life and work of Gilbert Gordon in the daily press, with its general estimation of the value of the cultured, honorable and sympathetic practitioner to the community, commands our warm praise and makes us feel that the oftentimes overtaxing strain is after all worth the labor, if it but brings us so near to the hearts of our fellowmen.

Abroad, one of the princes of medicine passed away in the person of the great Virchow; honored by his fellows the world over, by the State and people. While the veil of the future still hangs before our eyes, and though we stand on this side in what seems to be the full glory of the noon-tide of discovery, yet ever and anon there flash out from its impenetrableness gleams of light that seem to us revelations more glorious and full of hope than any which have yet been accorded to this age of rapid advancement.

We rejoice in the history of the past with its record from the groping of inexperience to the dawn of rationalism. The progress in our science has carried us from the question, "How shall we treat?" to "How shall we prevent?" and the unfolding of the future will largely concern developments along the line of the latter question. To its solution this chair again calls your eager attention and effort. No question involving greater issues has ever been presented to the minds of men.

The time demands greater concentration of effort, more systematic methods of study and work; a priesthood in the temple of Galen more intellectual and highly trained than has been found during the past, and these the time will have. Let it be our part to so lay the new road-beds of medical progress that the trains may run no danger of being jolted and hindered by the pine stumps and rocks of the "has been."

"Then let us on through shower and sun,
And heat and cold be driving;
There's life alone in duty done,
And rest alone in striving."—*Whittier.*

UTERINE MYOMATA AND THEIR TREATMENT.*

BY THOMAS S. CULLEN, M.B.,

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Mr. President and Gentlemen,—I gladly accepted your very kind invitation, not only on account of the great honor you have conferred upon me, but also because it gives me the pleasure of once more mingling with my teachers and schoolmates. It carries me back to my earliest glimpses of medicine, and even now I have vague recollections of sitting on the anxious bench nervously awaiting the results of the University and Council examination.

The subject I have chosen is a familiar one everywhere, but strikingly so in the South where the negro population is greater. In Baltimore, nearly one-tenth of all gynecological cases admitted to our wards have been uterine myomata. Dr. Kelly and I have been analyzing the material of the Johns Hopkins Hospital of the last fourteen years, and during that time considerably more than a thousand cases of myoma have been placed on record. In deciding upon the preferable operative procedure in a given case it is necessary to bear in mind the different varieties of myomata, their situation and size, the various degenerative processes which they may undergo and the complications that may arise. Furthermore, certain symptoms will also serve as a guide for treatment. In order to make the present paper clearer, permit me to discuss briefly these points. The subject is not new, but we are every day adding little by little to our knowledge of it.

From the investigations of others as well as from our own studies it would appear probable that in the beginning nearly all myomata are interstitial. As they increase in size they may remain so, or on the other hand, may push outward or inward, forming subperitoneal or submucous nodules. The number of myomata present in a uterus may vary greatly. Occasionally only one is present, but more frequently seven or eight and in not a few instances twenty or more can be counted. Again, these growths usually vary much in size. Thus in a uterus there will often be found a myoma of many pounds' weight, while in its immediate vicinity is another myomatous nodule not larger than a pin-head. As we all know, myomata may occupy any part of the uterus, sometimes being located on the surface of the organ or at other times pushing their way out between the folds of the broad ligament. Again, not infrequently they occupy the entire pelvis, and we find

* Read at meeting of the Ontario Medical Association, Toronto, June, 1903.

the body of the uterus lying on the top of them. These are the cervical myomata which at times are so difficult of removal.

Condition of the Endometrium where Simple Uterine Myomata Exist.—As a rule the cervical mucosa is perfectly normal, save for the presence of a cervical polyp or some dilated cervical glands. In the body of the uterus endometritis is occasionally found, but, when present, is almost invariably associated with inflammatory changes in the adnexa. Tuberculosis of the endometrium is occasionally associated with myomata, but rarely occurs independently, and is then usually secondary to a similar process in the Fallopian tubes. Of squamous-cell carcinoma of the cervix and adeno-carcinoma of the body of the uterus we shall speak later.

While any of the foregoing conditions may exist, in nearly all instances the changes present are usually entirely mechanical in their nature. If the myomata are subperitoneal or intra-ligamentary the mucosa is usually normal, provided of course that the tubes are unaltered. When the nodule impinges on the uterine cavity the mucosa over the most prominent part becomes stretched and thinned out, until eventually there will remain nothing but the surface epithelium covering the nodule. While this atrophy is taking place, the mucosa in the depressions at the sides of the nodules remains unaltered or becomes thicker, this thickening occasionally being due to simple gland hypertrophy. Portions of the mucosa are often mechanically forced out into the cavity, producing polypi. With the distortion of the mucosa the glands sometimes become blocked, and small cystic dilatations are formed.

When the myoma becomes entirely submucous, it is usually covered with a thin layer of mucosa, but in a few instances we have seen a sloughing focus in the myoma opening directly into the uterine cavity.

Now and then a submucous myoma in the posterior wall will blend with a similar nodule in the anterior wall, obliterating the uterine cavity entirely over a limited area. From an examination of a great many specimens we can lay down the general rule that where the Fallopian tubes are normal and where no sloughing submucous myoma exists the uterine mucosa is perfectly normal. This fact has no little bearing on the operative treatment inasmuch as the condition of the mucosa is an index of how far we may venture in removing a partially submucous myoma by way of the abdomen. Histological studies, then, having taught us that the endometrium is usually normal, we can in most instances open up the uterine cavity with little or no danger of infection.

Parasitic Myomata.—With the increase in their size the subperitoneal nodules are continually rubbing against neighboring structures and frequently become attached to them. As a rule they become adherent to the omentum, the omental vessels soon fur-

nishing a part of the blood supply and the original attachment to the uterus becoming less and less, until it is finally lost and the nodule apparently springs from the omentum, and from it receives its entire nourishment.

Recently I operated upon a patient giving a clinical history almost typical of an ovarian cyst, but on opening the abdomen I found a myoma about the size of a fetal head. This was attached to the uterus by a very delicate pedicle, while all the omental vessels plunged into its upper portion and supplied nearly all its nourishment. Associated with this partially parasitic myoma was an accumulation of fifty-two litres of ascitic fluid.

A few months ago while performing a hysteromyomectomy, I saw a nodule as large as a baseball situated at the brim of the pelvis. It lay directly over the ureter as the latter crossed the pelvic brim. Its nourishment came from the mesenteric vessels, and it had absolutely no connection with the uterus. This nodule in all probability had originated in the uterus, but becoming adherent to the pelvic brim had gradually changed its source of nourishment until eventually all trace of its former attachment was lost.

Simple Degeneration in Myomata.—Myomata, no matter where situated, often undergo softening. In the first place the tissue changes in color from the characteristic whitish-pink to a white or yellowish-white. Such areas are sharply circumscribed, and occupy a varying portion of the myoma. This whitish tissue gradually disintegrates and the spaces thus resulting are usually filled with a clear serous fluid. Sometimes, however, the material is oily in nature, resembling melted butter. As a result of the continual breaking-down of this altered tissue we have large cavities traversed by delicate trabeculae. On histological examination the degeneration is seen to be hyaline in character, and this hyaline tissue gradually melts or fades away, leaving the spaces filled usually with serum, but occasionally with the butter-like material. This fluid on histological examination is found to contain large quantities of fat droplets and cholesterol crystals. In these degenerated myomata there is usually not the slightest inflammatory reaction and no evidence of infection. This is fortunate since, if perchance we should accidentally rupture such a myoma during its removal, we should have little to fear if some of its contents escaped into the abdominal cavity.

Suppurating Myomata.—Occasionally subperitoneal and intraligamentary myomata become infected, probably as the result of some degeneration which has permitted the entrance of bacteria. These suppurating myomata have an outer covering of myomatous tissue, and are lined internally by granulation tissue. We have seen them containing several litres of pus. In one patient operated upon at the Johns Hopkins Hospital there was a large cavity in a subperitoneal myoma which extended as high as the umbilicus.

This cavity communicated freely with the transverse colon, the feces passing directly from the gut into the abscess cavity.

Sloughing Submucous Myomata.—While the subperitoneal nodules are extending upward and outward the submucous ones are forced more and more into the uterine cavity. Their mucosa becomes thinner and thinner, and eventually the dependent portion of the nodule usually undergoes necrosis and sloughing. Sometimes only a small portion of the nodule disintegrates, but occasionally the uterine cavity contains a sloughing nodule fully as large as an adult head.

In one of our cases we found a necrotic interstitial myoma, which on its inner side communicated with the uterine cavity. On its outer side it had involved the uterine wall; necrosis had followed, the peritoneum had become involved, and the patient had died of a general purulent peritonitis.

The Tubes and Ovaries in Cases of Myoma.—Let us now briefly consider the condition of the tubes and ovaries, and also see the effect of the myomatous uterus on the surrounding structures. In the tubes we have noted hydrosalpinx (simple and follicular), hemosalpinx, tubal pregnancy, salpingitis, tubo-ovarian cysts and adeno-carcinoma, secondary to adeno-carcinoma of the ovary. Occasionally the normal tubes may be lost on the surface of the myoma, and appear again at a distant point. While any of these conditions may be found, simple inflammatory adhesions are the most frequent. In all probability the adherent condition of the tube is due to the mechanical irritation caused by its being rotated and rubbed against surrounding parts.

Numerous pathological conditions of the ovary are also associated with uterine myomata. Thus we have found Graafian follicle cysts, both large and small, corpus luteum cysts, multilocular adeno-cystomata, dermoids, papillo-cystomata, primary adeno-carcinomata and ovarian abscesses. The ovaries are often embedded in adhesions, usually delicate and fan-like. The inflammatory reaction seems to be chiefly the result of mechanical irritation.

Parovarian cysts are also associated with myomata in a moderate number of cases.

The relation of the *bladder* to the myomatous uterus is also of importance from an operative standpoint. At times it is not at all altered in its position, but is often drawn upward and downward, being spread uniformly over the anterior surface of the tumor. In other instances it has early become adherent to the tumor at one point, and with the growth of the myoma has been drawn out into a long tongue or funnel-shaped projection. We have seen the bladder drawn fifteen or more centimeters above its normal attachment, and in a few instances it has extended upward as far as the umbilicus. The interior of the bladder is rarely, if ever, altered.

If the tumor becomes incarcerated in the pelvis and pressure symptoms develop the *ureters* are frequently affected. First, they dilate, giving rise to a hydroureter, sometimes reaching 1.3 cm. or more in diameter. Later on, they may become adherent to the myoma, and with its continued growth be carried up out of the pelvis. It is exceedingly important to remember this possible displacement when operating. Hypertrophy of the ureter is occasionally caused by the myoma and hydronephrosis may supervene.

Adhesions between the myomatous organ and the rectum frequently take place, especially where the growth tends to become incarcerated in the pelvis. As the growth rises up, it sometimes takes the rectum with it, making it taut and carrying the upper portion high into the abdomen. As might naturally be expected, the intestines which lie in direct contact with the tumor sometimes become adherent to it. As a rule, these adhesions are slight, but at times the intestine is so intimately blended with the growth that it is necessary to sacrifice a portion of the uterine wall in removing the organ. Occasionally kinks in the bowel follow as a result of adhesions, and the patient dies of intestinal obstruction. The appendix in many cases has dropped down and become adherent to the tumor, or to the right tube and ovary.

Adeno-Myomata of the Uterus.—We will now consider a variety of myoma, which until very recently has received little attention. In these cases we have, as a rule, a uterus, which is moderately enlarged, but which conforms to the normal contour, save for some small nodules scattered throughout its walls or over its surface. On microscopic examination we find that the inner muscular layers of the uterine walls have become coarse in texture, and converted into myomatous tissue. Into this coarse-textured tissue the uterine mucosa literally flows. We thus have myomatous tissue with islands and rivers of normal uterine mucosa scattered throughout it. With the gradual growth of the adeno-myoma portions of the mucosa are nipped off, and either become submucous adeno-myomata or pass to the outer surface, forming subperitoneal nodules. The islands of mucosa in the myomata still retain their natural menstrual function, and hence at each period pour out their quota of menstrual blood. Naturally where the nodule is subperitoneal, and the glands are surrounded on all sides by myomatous muscle there is no escape for this flow. It thus accumulates and eventually we have the myomata containing large cyst-like spaces lined by a smooth velvety mucosa, and filled with chocolate-colored fluid—the dammed-up, changed menstrual flow. In nearly every instance in which we find a large intraligamentary or subperitoneal myoma containing such cyst-like spaces and filled with chocolate-colored contents, we may ascribe it to an old adeno-myoma. Adeno-myomata of the uterus were found in nearly 2 per cent. of our cases. They are benign.

Sarcomatous Degeneration of Myomata.—Within recent years studies have definitely established the fact that myomata may undergo sarcomatous degeneration. Clinically, patients suffering from such growths usually give a history of several years' duration during which the growth has either lain dormant or increased very slowly. Suddenly there is renewed activity, and in a few months the myoma increases greatly in size, and more or less marked signs of cachexia begin to appear. Sarcoma usually develops in one of several myomatous nodules and may be subperitoneal, interstitial or submucous, although it was formerly thought that such growths were always of the last-named variety. If the sarcoma develops in a submucous myoma portions of it may from time to time be expelled through the vagina—the so-called “recurrent fibroids.” The sarcoma may develop from one of two sources, the connective tissues or the myomatous muscle cells. If it originates from the stroma the sarcoma may be spindle-celled or round-celled; if from the muscle, it is of the spindle-celled variety. From the drawings which are being passed anyone will be able to convince himself that a sarcoma may develop in the centres of myomata, and from the histological pictures it is possible to trace all stages from the normal muscle fibres to those which show the typical ear-marks of sarcoma. We have had several cases in our series where the myomata became sarcomatous, and in some of them death soon followed from metastases. It is of extreme importance to remember these cases when weighing in our minds the appropriate mode of treatment.

Carcinoma of the Uterus Associated with Myoma.—In my work on cancer I reported several cases of carcinoma of the uterus occurring in conjunction with myomata, and in the three years intervening since the appearance of the book a goodly number of similar cases have come under my observation. Of course where squamous-celled carcinoma or adeno-carcinoma of the cervix exists it will, as a rule, be readily detected before the operation, and we will thereby be influenced in our mode of treatment. In the majority of the cases, however, where cancer of the body of the uterus has existed, it has not been suspected until the uterus had been opened after operation. Nor need such ignorance be unpardonable; for in all probability the only suggestive symptom has been hemorrhage, which naturally would be explained as belonging to the myoma. One would hardly deem it necessary or wise to curette when the myoma could be so clearly outlined, and considering the fact that the uterus is to be removed in so short a time. Nevertheless, when outlining the treatment one should always bear in mind the possible co-existence of a carcinoma of the body of the uterus and act accordingly.

Symptoms of Myomata.—The clinical features in cases of uterine myomata are mainly dependent on two chief factors:

First, the situation of the nodules; second, the size of the tumor. While these growths develop during the child-bearing period they may not make themselves manifest until late in life. A myoma may be as large as a fetal head and yet give no symptoms whatever and be only accidentally detected. On the other hand, a nodule not larger than a walnut may give rise to alarming hemorrhages. If the myomata are interstitial or subperitoneal, and so situated that they do not encroach on the uterine cavity, there will, as a rule, be little bleeding. On the other hand, if the myoma projects into the uterine cavity, thereby putting the mucosa on tension, there will undoubtedly be very free and troublesome hemorrhage. The amount of bleeding is usually in direct proportion to the surface area of the uterine mucosa on tension. We have had patients lose nearly two litres of blood at one time and in one case I was called in to see, the uterine cavity was 24 cm. in length and contained over a litre of decomposing blood-clots.

In the cases in which the myomata encroach on the uterine cavity the patient will usually give a history of prolonged menstrual periods for the last few years and will complain of some backache and often of a feeling of bearing-down pain in the lower abdomen. After suffering from these symptoms for a time she suddenly noticed a lump in the lower part of the abdomen. With this increase in size there may be an increased frequency in micturition or retention due to the bladder being jammed up against the symphysis pubis. With the continued growth of tumor constipation becomes marked and possibly pruritus ani develops, both due to the pressure of the growth on the rectum. Later on the woman suffers from pain and occasionally notices edema in one or both of the lower extremities. I recently operated upon a patient who had an interstitial myoma about the size of a child's head. The pressure symptoms were such that when lying down she had to be assisted to rise, although, when once on her feet, she had no difficulty in attending to her household duties.

With the continued enlargement of the myoma the abdominal contents will be forced against the diaphragm and shortness of breath will naturally follow.

In those cases in which submucous myomata exist, as evidenced by the prolonged menstrual periods or menorrhagia, the hemorrhage usually increases in amount and between the periods of bleeding there is a purulent or muco-purulent discharge. In some instances the submucous myoma is forced more and more into the uterine cavity, and after a time projects slightly through the external os. At this time there is often a loss of substance over the most dependent position of the tumor. Necrosis of the nodule now readily takes place, and we have in addition to the hemorrhage a continual watery and most offensive vaginal discharge, in odor and appearance often strongly suggesting that common in cancer.

The long drain on the patient's resources saps her strength, and she becomes sallow, or very anemic in appearance, and may have irregular elevations of temperature due to the damming-up in the uterine of purulent fluid or to a septic focus which has meanwhile developed in the Fallopian tubes or in a neighboring myomatous nodule. The hemoglobin at this stage is often below 30 per cent. There are hemic heart murmurs, and the patient suffers from a giddiness and fainting spells. Under such conditions she is now forced to spend most of her time in bed. Such is frequently the clinical history in the severe cases of myoma. In addition to these symptoms we must remember those occurring where intestinal obstruction or appendicitis supervene, or where the development of ovarian cysts or extra-uterine pregnancy add to the complications.

Vaginal Examination.—While much may be learned from the clinical history, nothing gives such a clear idea as the bimanual examination. In a simple case the finger in the vagina finds the cervix to be of normal size, while with the abdominal hand one or more hard nodules are to be felt rising up out of the pelvis, and on making pressure upward from the vagina we are able to determine that the mass is directly continuous with the cervix. This also enables us to determine the mobility of the tumor, and also sometimes permits us to say with a fair degree of certainty whether the growth is adherent or not. In not a few instances we find the cervix jammed up against the symphysis pubis, and the posterior vaginal vault bulging downward due to the choking of the pelvis by the tumor. If the growth be cervical, the cervix has often unfolded itself on the surface of the myoma, and is flush with the vaginal vault. In such a case the external os is often recognized as a semilunar slit 2 or 3 cm. in length.

Where a submucous myoma exists the cervix will often admit the finger, and the nodule can be felt plugging the cervical canal just above the external os. If the myoma has already partially escaped into the vagina, the finger comes immediately in contact with it, and on skirting it backward the cervical lip is felt as a tense band hugging the outer surface of the growth.

Where the myoma is necrotic and has been sloughing for a long time, we may find a tough, but soft, slimy mass projecting from the vaginal outlet. Such tissue bears a striking resemblance to raw beef that has been macerated in water for some length of time.

Gentleness should always be exercised while making vaginal examinations. In at least two instances on opening the abdomen I have found that during the examination, just prior to the operation, subperitoneal nodules had been torn from their pedicles, and from the rent there had been free hemorrhage into the pelvis. In both of these cases several persons had examined the patient, and evidently too much force had been used. Where the operation

was performed at once, as in these cases, the injury was of little consequence, but should such an accident have occurred during an ordinary routine examination, there would, in all probability, have been a fatal hemorrhage.

Treatment of Uterine Myomata.—The surgeon's first duty is to remove the growth. The second, equally important, is to sacrifice the reproductive organs as little as possible consistent with safety. Prior to opening the abdomen a catheter should be introduced to determine the confines of the bladder. If the viscus is high up, the abdominal incision should be commenced near the umbilicus, and carefully continued toward the pubes. After having entered the peritoneal cavity and carefully packed off the intestine, the operator should examine the tubes and ovaries, and if these are free from adhesions the question of a simple myomectomy should be considered.

Myomectomy.—Should the tubes be the seat of an inflammation hysterectomy should be performed, as there is a possibility of infecting the cavities left in the uterus after the removal of the myomata. Several years ago, over-enthusiastic for conservatism, I did a myomectomy, after having made artificial fimbriated extremities for both tubes. In a few days there were distinct evidences of infection of the uterus. I again opened the abdomen and drained from above and below. The patient lingered for a month and then died. In this case there was, in all probability, a latent infection lurking in the tubes, although no pus was detected at the time of the primary operation. The operation was a simple one, and had I performed a hysterectomy recovery would, in all probability, have followed.

After satisfying ourselves that the appendages are normal, and that there is no offensive vaginal discharge indicative of a submucous myoma or of carcinoma, we should carefully examine the uterus to see if it be feasible to do a myomectomy. Where the nodules are few in number and situated at accessible points, the uterus should be saved. In a few instances, we have removed interstitial myomata larger than an adult head, and yet been able to preserve the uterus. If, however, the uterus is everywhere studded with small or medium-sized myomata, there is a great probability that some would be left behind, and a subsequent hysterectomy become necessary.

It is not advisable to do a myomectomy where the nodule is situated in the broad ligament or deep down laterally in the pelvis. In these situations it is impossible to obliterate the resultant spaces and blood is bound to accumulate. These difficulties might be overcome by abdominal drainage, but here hysterectomy is preferable. Several years ago I removed a nodule the size of a small cocoanut from the left broad ligament. The lower portion of this nodule extended far down beside the vagina. There was

little hemorrhage, and the tissues apparently fell together nicely. In a few days, however, the temperature rose to 104. Shortly after this there was a free discharge of pus from the bladder, and on examination much induration of the left side of the vagina was found. The abscess had opened into the bladder. After several weeks the abscess cavity closed and the patient is now, six years after operation, in perfect health. A similar case was noted by a colleague of mine; in this instance, however, the bladder was not implicated.

Should we decide on myomectomy, the easiest method of controlling bleeding is by means of a gauze rope applied around the cervix, and clamped with artery forceps, thus avoiding the necessity of tying. If the myoma be small, the incision is made directly over it, and as soon as the nodule is exposed it is grasped with a meso-forceps and twisted or shelled out. Where the nodule is large and partially subperitoneal, a lozenge-shaped piece of muscle is usually excised with the tumor. Care should be taken not to sacrifice too much muscle, as so much contraction may occur that it will be found almost impossible to bring the margins of the cavity together. After carefully palpating the uterine walls to be sure that no other nodules remain, and having turned in the mucosa and sutured with cat-gut, should the uterine cavity have been opened at any point, the various cavities are totally obliterated by cat-gut sutures, three or four rows being used if necessary. It is upon this total obliteration of all dead spaces that the success of the operation depends. Often there is bleeding from the stitch-holes on the surface. This is usually controlled by placing one or more cat-gut sutures at right angles to the others.

The operator need not be alarmed if the temperature rise to 100, or even to 102 or 103 a few days after operation. This we have noted very frequently. In such cases dead spaces have undoubtedly been left behind, and there soon occur a disintegration and absorption of the blood.

One should always remember that myomectomy is a much more dangerous operation than hysterectomy, and if the patient be weak or any other contra-indication exist the complete operation should be chosen. The latter operation is the one of choice after the menopause, myomectomy being applicable during the child-bearing period.

The operator should also bear in mind the possibility of leaving some myomata behind. I recently saw in the dispensary a patient on whom myomectomy had been performed nine years previously. She had been perfectly well for several years, but when admitted to the hospital a second time the uterus was fully five times the normal size and everywhere studded with myomata.

Where the resultant incision in the uterus is long, and it is necessary to hold the organ up on account of its large size intra-

abdominal shortening of the round ligaments is preferable to suspension. I am familiar with a case in which, following a myomectomy, the uterine incision became intimately blended with the abdominal wall over a wide area. Pregnancy followed, Cæsarian section was performed, and the patient died. Suspension in such a case is an entirely different problem to the simple operation for displacement as in the latter there is no raw surface whatsoever.

I would strongly advise giving the preference to myomectomy in all suitable cases, but in every doubtful instance hysterectomy should be performed.

Hystero-Myomectomy with Preservation of the Ovaries.—In those cases in which it is deemed safer to perform hysterectomy, if the patient has not passed the menopause, we should endeavor to save the ovaries. In the first place we have no right to remove normal structures, and in the second place preservation of the ovaries will relieve the patient, to a great extent, of the troublesome hot flushes and nervous phenomena naturally associated with the menopause. Thus, where the operation is performed on a woman, say, thirty-five years of age, these unpleasant phenomena are generally deferred until the usual time for the cessation of menstrual life, or for several years at least. We make it a point to preserve one or more ovaries wherever feasible. Spinelli and others are still more conservative, and whenever possible preserve, at least, the lower segment of the uterine cavity, in other words some of the mucosa from the body is left *in situ* and the menstrual function, although naturally limited, is still preserved. In the near future it seems probable that this plan of treatment will often be adopted.

In performing the ordinary hysterectomy with amputation through the cervix it is well always to remember the blood supply of the pelvic organs. From above downward we have the ovarian artery and veins easily exposed to the outer side of the ovary. Next comes the artery of the round ligament which, although small, often occasions much oozing if not tied. On freeing the folds of the broad ligament the uterine artery with its accompanying veins is seen skirting the side of the cervix near the internal os. On the opposite side a similar system of vessels is encountered. We may then roughly compare the hysterectomy with amputation at the cervix to an ordinary amputation with four main vessels, the ovarian and uterine on each side.

Where the growth is situated in the body of the organ and the cervix is long, the operation is as a rule quite simple. The round ligaments are first tied and the organ can be lifted still higher out of the abdomen. Portions of the ovarian vessels passing to the uterus are controlled at the uterine horn, and the uterus is freed on each side. After opening up the broad ligaments laterally

and separating the bladder reflection anteriorly, the uterine vessels are readily exposed and tied. Many operators employ only cat-gut for the uterine and ovarian arteries. We still feel much safer with silk, and always use it for the larger vessels. After tying the uterine arteries, taking of course good care not to include a ureter in the ligature, we cut through the cervix, encountering little or no bleeding, except from the tumor. We usually cup the cervix slightly, and then close with cat-gut sutures. Only occasionally is the cauterizer introduced into the cervical canal. The broad ligaments are then closed with continuous cat-gut sutures, care being taken to cover the stumps of the appendages. The bladder peritoneum is drawn over to that of the posterior surface of the cervix. The pelvis now presents a perfectly smooth surface, offering little opportunity for the subsequent development of intestinal adhesions.

Hysterectomy with Removal of the Appendages.—If it has been deemed advisable to remove the ovaries, the operation is carried out in precisely the same manner, save that the ovarian vessels are tied just before they reach the ovary instead of on the uterine side.

While many hystero-myomectomies offer little difficulty, others are by no means so easy. Sometimes the growths are exceedingly large and so distorted that it is at first hard to get one's bearings. Under such circumstances it is always advisable to seek out the round ligaments and sever them at once. This invariably renders the tumor more mobile. The left tube and ovary are then usually tied off, and the tumor rolled outward and to the right, as recommended by Dr. Kelly. The uterine vessels on the left side are now controlled and severed, and the cervix is cut across with the upright slant so that the cervical stump and consequently the uterine vessels left on the right side will be longer. Clamps are applied to the right ovarian vessels, and the entire tumor is removed *en masse*. It is astonishing with what ease an otherwise difficult operation is rendered comparatively simple by this "from left to right" operation of Kelly. Great care must be taken with the ureter, and if the operator has the least suspicion that one or both have been injured he should seek each ureter as it crosses the pelvic brim, and follow it through the pelvis and carefully outline it to its vesical insertion.

Several months ago I had a very difficult hystero-myomectomy in which the patient was exceedingly anemic, and the vagina was filled with a very vascular submucous myoma. While liberating a subperitoneal nodule adherent to the right pelvic brim I found it necessary to tie the ovarian vessels. There was only one point at which the vessels could be controlled, and that merely wide enough for a single ligature. After having emptied the pelvis I felt rather uneasy about the right ureter, although no suture had

been placed anywhere near the usual ureteral site. As a matter of fact the ureter had been included with the right ovarian vessels. It was released with ease, and the patient made a perfect recovery.

Sometimes the ureter is carried up out of the pelvic cavity by large tumors, and there is great danger of it being tied or cut. If, after tying the round ligaments and releasing the tube and ovary, the blunt dissection be carried down close to the uterus the danger is minimized. In some instances it may be necessary to perform a preliminary myomectomy, thus diminishing greatly the size of the uterus and allowing the ureters to drop back into their normal position. The same result may be accomplished by bisection of the uterus.

Bisection of the Uterus.—In not a few instances, on opening the abdomen, the operator is confronted with a very discouraging problem. The pelvis is filled with a nodular tumor glued everywhere to the omentum and intestinal loops or firmly wedged in the pelvis. In some of these cases it is next to impossible to gain a point of cleavage, and were it not for bisection of the uterus the operation would either have to be abandoned or the resultant injury to the intestine from the difficulty in the separation of adhesions would be so great that the chances of the patient's recovery would be minimized. In such difficult cases the uterus is firmly grasped with meso-forceps on each side, and the organ is boldly split in the middle. As the incision is increased fresh meso-forceps grasp the uterine walls on either side, and eventually the entire organ is separated into two halves or divided as far as the cervix. We would naturally expect to see injury to the surrounding parts, but by this operation we reach the adhesions from their under surfaces where they are lightest. You would also naturally expect much hemorrhage, but if the uterine halves are kept taut with the meso-forceps no danger from this source is to be feared.

With the uterus now in halves the respective portions are removed entire or amputated through the cervix, the vessels being controlled in reverse order to the usual method, namely, first the uterine, then the round ligament, and finally the ovarian vessels. The remainder of the operation is completed in the usual way.

Abdominal Hysterectomy with Preliminary Amputation through the Cervix.—In a certain number of cases, in which the adhesions are so great that bisection of the tumor is not feasible, it may be possible after severing the round ligaments to push down the bladder so that the cervix is exposed. The uterine vessels are then clamped on both sides, and the cervix is cut through. The cervix is then drawn strongly forward, and Douglas' sac is opened from below. The cervix is now drawn still further upward, and all the adhesions are gradually separated from the under surface. The ovarian vessels are clamped on each side, and the tumor is

delivered. In these desperate cases all vessels have been clamped and the organ is removed without a ligature having been applied. The vessels are tied with silk and the operation is completed in the usual way.

Where the intestines are densely adherent to the tumor, always sacrifice the part of the myoma or its overlying layer of uterine muscle, as the case may be, leaving it attached to the intestines. This raw flap adherent to the gut is now turned in on itself in such a manner that the bleeding is checked and a smooth surface left.

Complete Abdominal Hysterectomy.—While amputation of the cervix is usually preferable, first, because it is easier, and, secondly, on account of the remaining portion of the cervix forming a good firm support for the vaginal vault, still in not a few instances the complete operation is clearly indicated. For example, where a large cervical myoma exists there is often no normal cervix left and the growth has so encroached on the vagina that a small cuff of this must also be removed. In these cases after tying the uterine arteries low down near the ureter it is not very difficult to free the mass on all sides until the vagina is exposed. In every case, however, where there is great danger of injury to the ureters these should be carefully outlined to see that they are intact.*

In all cases in which we suspect adeno-carcinoma or development of sarcoma in a myoma, splitting of the ureter should never be performed as we run the risk of not only implanting cancer and sarcoma cells upon healthy tissues, but also of setting up a general peritonitis as in these cases virulent pus organisms are very liable to be present. Knowing that we may at any time encounter malignant growths in the uterus, when we are operating for myoma, I have made it a rule where the uterus has been amputated at the cervix to always have the organ opened at once so that if, perchance, a malignant growth exists the cervix may also be removed before the abdomen is closed.

Treatment of Myoma Complicating Pregnancy.—If pregnancy occurs when the uterus is studded by large and small myomata which apparently encroach on the uterine cavity to such an extent that they almost preclude the possibility of the pregnancy advancing over a few months, hysterectomy should undoubtedly be performed irrespective of the ovum. In other cases in which the myoma is cervical and so plugs the pelvis that labor through the normal passages is impossible, the question should be laid squarely before the family and the alternative of complete hysterectomy at once or Cæsarian section at term followed by hysterectomy at a later period discussed. The uterus might possibly be removed

* Doyen's operation where Douglas' sac is opened, the cervix firmly grasped and drawn backward and upward and then freed from the vagina on all sides and the uterine vessels are clamped and cut is also a method of complete hysterectomy to be strongly recommended.

immediately after the Caesarian section, but the parts are so vascular in the pelvic floor, and a large cervical myoma is often so difficult of removal that no fixed rule can be laid down, and the surgeon must use his own discretion in the individual case. Recently I saw a patient who was eight months' pregnant, who had a myoma as large as a child's head situated in the anterior uterine wall. Three surgeons were sure that Caesarian section would be necessary; two considered normal labor possible. All preparation was made for operative interference, but the patient fortunately had a normal labor.

Treatment of Submucous Myomata.—Where the submucous myoma is small and situated far up in the body and no discharge exists, it will often be advisable to open the abdomen, split the uterus and remove the nodule, showing up the rent in the uterine mucosa, and then uniting the muscle. If the myoma project through the cervix where it can be grasped, it is often possible to bring it down and we can control the pedicle by two or three cat-gut sutures. If it be impracticable to reach the pedicle, the cervix may be split anteriorly until the necessary exposure is obtained. If the nodule is very large and fills the vagina, delivery by obstetrical forceps is at times feasible; but as a preliminary measure it may be necessary to incise the peritoneum to obtain the requisite space.

In a recent case the vagina was completely filled by the growth and the hemorrhages had been very profuse and frequent. I endeavored to build up the patient, but without success. We waited until within a few days of the next period so that she might rally somewhat. On attempting to wash up the vagina the hemorrhage was alarming. I accordingly desisted and opened the abdomen at once fearing that any more vaginal interference until the uterine vessels were tied would render her pulseless. After all the blood supply had been cut off, the nodule was readily drawn up through the abdominal incision with the accompanying multinodular myomatous uterus.

Where a sloughing submucous myoma exists, the utmost care is necessary. If there be little bleeding, it will be safe to delay operation a few days, and frequent douches of a 1 or 2 per cent. solution should be given. Where there are no other myomatous nodules and where the offensive discharge has ceased the myoma may be treated as a simple submucous nodule and removed. If, however, the uterus be large and studded with other growths, the cervical lips may be sewn together, the vaginal portion of the growth having been removed some days previous. The vagina is then thoroughly douched with a 2 per cent. formalin solution and bichloride and complete abdominal hysterectomy performed. Unless the chances of infection from the uterine cavity be reduced to a minimum, the probability of general peritonitis is great.

When not to Operate in Cases of Uterine Myomata.—It is only after studying many cases and following, as it were, their life history that we can get the true perspective and determine with any degree of accuracy when to operate or in what cases it would be better surgery to refrain from interference. This is especially the case when considering the treatment of uterine myomata. We all know of patients who have had myomata for many years and yet suffered no inconvenience whatever. Others have experienced some trouble, but not sufficient to interfere with their daily work. Judging from these cases alone we would naturally infer that no operation would be necessary unless the myoma attained very large proportions. From our work on the subject, however, we find that unpleasant consequences may follow ultra-conservative treatment. In the first place we have seen that uterine hemorrhages often become profuse and frequent, occasionally amounting to from 1 to 2 litres at a time. Then, again, the general health gradually yields under the constant loss of blood. After a time pressure symptoms not infrequently develop accompanied by gradual interference with locomotion. Again, we have to bear in mind that these growths may be so situated as to effectively prevent a normal labor. With the formation of adhesions there is some danger of intestinal obstruction, and an operation, where such a complication exists, is most unpromising. Finally, we must remember that in fully 1 per cent. of the cases sarcomatous degeneration of the myomata occurs,* and in another 1 per cent. carcinoma complicates myoma; so that in practically 2 per cent. of all uterine myomata a malignant growth also develops at one period or another.

The Operative Results in Myoma Cases.—It is not many years since the mortality in simple myoma cases was excessive. To attempt removal of a large and adherent myomatous uterus was rarely undertaken. But during the last decade the technique has been so perfected that in some clinics the mortality in simple cases is not over 3 per cent., and in Naples last fall Professor Spinelli informed me that he had just operated upon 100 cases with a mortality of not over 1 per cent.

With such advances in surgery, bringing with them so marked a decrease in the mortality of these cases, have we the right to advise against operative interference with the possibility of hemorrhage, loss of health, pressure symptoms, septic infections, intestinal obstruction, staring us in the face, and even the remote likelihood of sarcomatous degeneration or carcinoma? And this is not all. When giving our verdict in this or that case, it is on the assumption that our diagnosis has been correct. Unfortunately we are not infallible. Less than seven weeks ago I saw

*This is a very conservative estimate as some have noted it in 2 per cent.

in consultation a patient complaining of slight hemorrhage, and with a uterus about twice the natural size, rather firm and feeling exactly like a small uterus containing a nodule the size of a small apple. To clinch the diagnosis were two small nodules each about 2 cm. in diameter, one on the posterior surface of the uterus, the other at the right cornu. She asked if it were cancer, and I informed her that it was without doubt a myoma. On account of bleeding I advised hysterectomy, and to my surprise the growth proved to be an adeno-carcinoma of the body of the uterus, while the two supposed small myomata were situated at points at which the cancer had extended entirely through the uterine walls, forming secondary growths on the surface of the organ. They were already adherent to the small intestines. With my eyes closed and that uterus in my hand I should undoubtedly have diagnosed the case as one of myoma.

Nor are these cases by any means rare. I removed a uterus the size of a four-months' pregnancy two years ago, and to my surprise on opening it I found it the seat of an extensive nodular carcinoma, no myoma being present. Two weeks ago one of my colleagues removed a uterus about the size of a four-months' pregnancy. Pregnancy, however, was absolutely excluded, and the specimen was sent to the laboratory with the supposition that the growth was a myoma. On opening the organ, we found a cancer just above the internal os. This had blocked the cervical canal, and the uterus was distended by fully 500 cc. of blood. On three different occasions I have opened the abdomen expecting to find myomata. In each the history was absolutely against pregnancy, but upon this we cannot rely in the majority of the colored race. In each of the three I carefully made an incision until the nodule was detected, and then a hysterectomy. These are but a few instances of the difficulties that arise in making an absolute diagnosis in cases in which myomata are suspected.

After a careful study of many cases and finding that the operative mortality is as low as or even lower than that which follows where patients are not subjected to operation, I feel that the only patients that should be advised against operation are those who exhibit no symptoms or where the myomata are very small and give rise to little or no trouble.

I am afraid my remarks have been too lengthy, but the subject is a very important one and merits, I feel, all the time you have so kindly allowed me to occupy.

DIPHTHERIA.*

BY J. J. MACKENZIE, B.A., M.B.,
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WHEN I was asked by your Committee to prepare a paper on the subject of "Diphtheria," I was rather at a loss to know how to treat it. It seemed as if here, at least, was a subject upon which nothing new could be said. The etiological factor thoroughly well known, the epidemiology well understood, and the treatment resting upon a surer scientific foundation than any other infectious disease, what was there new that would be of interest to this Association? And yet, perhaps, it is well to study and restudy even those things which we think we know most about lest in the pride of knowledge we come to overlook matters. To the bacteriologist it is indeed a pleasure to discuss diphtheria, since to the science of bacteriology medicine owes all that it has in the prophylaxis and treatment of the disease. It is now just twenty years since Klebs gave the first description of the bacillus, and just nineteen years since Loeffler first described its appearance in culture; less than ten years ago Behring and Roux published their epoch-making discovery of the antitoxin, and to-day diagnosis and prophylaxis rest largely upon the microscopic recognition of the bacillus and treatment largely upon the use of the antitoxin. The importance of the knowledge derived from bacteriological sources is seen when we study the history of the disease and find that Bretonneau of Tours, in his classical work on the disease in 1826, had recognized all its various clinical forms and the sequelæ, understood its epidemiology, and, perhaps, was as successful in the treatment as we if we were without our knowledge of the bacillus and the antitoxin.

As I said above, it seemed to me difficult at first to select any questions which would interest the Association, but it struck me finally that it would not be without interest to discuss some of the questions which have arisen out of our more modern bacteriological knowledge, and to inquire for a moment as to what additional contribution we may hope for from experimental medicine in the treatment of this disease.

And first, perhaps, the most important question is in regard to the bacillus itself. With a closer study of the organism a number of observers have endeavored to set up as varieties a series of forms differing somewhat in their shape and staining characters,

* Read at Meeting of the Ontario Medical Association, Toronto, June, 1903.

but the most thorough study has failed to connect these varieties with any special clinical types of the disease, and seems rather to point to their being due to an inherent pleomorphism in the bacillus which is readily brought out by cultural conditions. In regard to the so-called pseudo-bacillus the opinion of bacteriologists is practically unanimous in separating it entirely from the true form and without significance in the etiology of the disease. The organism is so characteristic that a moderate amount of training enables one to recognize it without the slightest difficulty. But in using the microscope in diagnosis the physician who takes the swab is not without influence, since upon the thoroughness with which it is taken depends often the success of the microscopic examination. Physicians should remember that all the bacteriologist can tell them is whether the organism was present on the swab or not. It is hardly necessary to emphasize the necessity of preserving the swab from contact with disinfectants, but a point that physicians sometimes forget is that mere drying has a distinct bactericidal action, and that the diphtheria bacillus is not among the most resistant to drying, not nearly so resistant as the staphylococcus, for instance, an organism which is often found in the throat; so that from a swab which, say, contained a good many staphylococci and a few diphtheria bacilli, after twenty-four hours' drying only the cocci might be obtained on culture. I do not say that this would always be the case, but it undoubtedly sometimes happens, and it accounts for the failure sometimes to demonstrate the bacillus where we would expect to find it.

A question of considerable practical importance is the occurrence of the bacillus in the healthy throat. Its occurrence there may be due to one of two causes; first, to a lessened virulence, that is, a lessened infecting power in the bacillus; or, second, an increased immunity on the part of the individual. It is impossible from the form or microscopic characters of the organism to determine which is the condition, but we may surmise that where the organism is found in the throats of individuals who have not been in contact with active cases of the disease, the former may be the case, while where it is found in the throats of those who have been associated with cases of diphtheria, but in whom the disease has not developed, that it is due to the greater immunity of these individuals. The proper handling of such cases is of the greatest importance from the public health standpoint, and a certain amount of judgment must be exercised in regard to them. It is probable that those which must be regarded as a menace are such cases as children in the same family in which the disease is present, or in school-rooms in which members of the class are infected, or nurses in attendance upon cases, and when the organism is found under such conditions in otherwise healthy throats the cases must be treated as cases of diphtheria.

A question of the very greatest importance is the length of time that cases of diphtheria must be isolated after the disappearance of the membrane. In the premicroscopic days this was an arbitrary period determined by experience, but to-day in many places it depends upon the direct evidence of a microscopic examination of the throat, which demonstrates that the bacillus is no longer present. Experience of numerous observers has been that a single negative examination is not sufficient to declare a throat free from the bacillus, and in those centres where the most careful bacteriological control is exercised, at least two consecutive negative reports are required, and in some places three are asked for. The results of the experience of a great many laboratories seem to point to a remarkably long persistence of the organism in the throat. I believe that the Toronto results would on the average make it about three weeks, and other reports confirm this. Corresponding so closely with that previously established by empirical methods, one is inclined to question whether our methods of treatment have in any way shortened the period of viability of the organism. If we consider for a moment what that treatment is we will see that we can hardly expect any better results than we have. The treatment is twofold: the injection of the antitoxin for the treatment of the general and local manifestations of the disease and the use of various disinfectant sprays and washes for the treatment of the local symptoms and the destruction of the organism. Now in regard to the use of the antitoxin there is no doubt as to its efficacy in the treatment of the disease as a whole, but it is to be remembered that it is an *antitoxic* serum, that is, a serum that is specially prepared for combating the toxine of the disease, and our most recent investigations show that there is a distinct difference between an antitoxic and a bactericidal serum. There is not the slightest doubt that with antitoxin the membrane disappears more rapidly from the throat, but there is no evidence to show that this is due to the influence of the serum on the bacillus itself. In fact we may doubt if yet we have any very clear knowledge of the conditions under which the organism disappears from a throat. We may surmise, however, from the results of investigations into other bactericidal sera that this is due to two substances, the specific immune body or amboceptor of Ehrlich and the complementary bodies which are normally present in the body fluid. We know that an immune body is produced in the case of every infection, and that the complementary bodies are normally present, and we know that these substances are present in the glandular secretions. The evidence of a bactericidal activity of the saliva was given a great many years ago, and it seems probable that in an otherwise untreated throat recovering from diphtheria the organisms disappear owing to the action of these factors. On the other hand, in the use of disinfectant sprays and swabs we hope to actually kill the organ-

isms that remain in the throat. Is this not a false hope? I do not believe that it is possible with the most thorough and efficient use of disinfectants to destroy all the bacterial life in the nasopharynx. The experiments of Miller upon disinfecting mouth-washes show what a difficult matter this is. The attempts to disinfect the bowel show how hopeless is the task. On the other hand, a chemical which can be depended upon to destroy bacterial life cannot be without serious influence upon the life of the cells of the mucous membrane, and we know also that dead cells or strong chemicals will utterly destroy those complementary bodies which Ehrlich has shown to be necessary for the natural destruction of infecting bacteria. It seems to me, therefore, that the results of modern experimental work show that the way to cause the rapid disappearance of the diphtheria organism from the throat is to restore that throat as rapidly as possible to a normal healthy state, to use in fact only the mildest and blandest lotions, and to in every way stimulate the mucous membrane to carry out its normal functions, and thus by natural methods lead to the disappearance of the bacillus. Just here I may be permitted to hope that bacteriological research will soon give us a bactericidal serum for diphtheria, which may be used to hasten the action of the natural agencies in the same way that the antitoxic serum has enabled us to combat the general symptoms of the disease. Within the past month I have seen in an Associated Press despatch from Paris the announcement that Martin, of the Pasteur Institute, has produced such a serum, but I have not as yet seen Martin's paper and cannot speak definitely about it.

The significance of mixed infection in diphtheria is a bacteriological question of very considerable importance, which has been given a good deal of attention. In regard to it I think probably too much weight has been given to the cultural evidence of the presence of the streptococcus in the throat. The presence of this organism in the throat is not in itself an evidence of mixed infection; it is only when it begins to invade the tissues that it is of import and this will be demonstrated more clearly by the clinical course of the disease than by a bacteriological examination. It is in fact quite a common occurrence to find streptococci in throat cultures where there is not the slightest clinical evidence of an active infection. In connection with this matter of mixed infection, however, it is, perhaps, well for a moment to discuss the use of the antitoxin; there was a tendency at first when antitoxin was introduced to doubt its value in those cases in which there was an active streptococcic mixed infection. This was probably due to a wrong conception of the method of action of the antitoxin; since, however, we know that the action is a purely chemical one in the direct combination of the antitoxin with the toxin, there are no *a priori* grounds for doubting its usefulness in these as in simple

cases. In fact, clinical experience has fully shown that the antitoxin is just as useful in these cases, only that it must be used in large doses.

Perhaps here I may be permitted to refer for a moment to the antitoxin treatment, although this Association has in former years heard the subject so thoroughly discussed and the members have all had so much practical experience with it that it seems hardly necessary to more than touch on it. But I think that it is not right to let this opportunity pass without again insisting upon the necessity of adequate dosage in the use of antitoxin. I believe that the statistics of the first few years of antitoxic treatment must be largely discarded as of no value on account of the smallness of the doses. Two thousand units should be the minimum dose, and in severe cases, or in those which come late to treatment eight thousand, ten thousand or even more should be used. I was told the other day of the really wonderful results which they have had at the Isolation Hospital in Ottawa in the treatment of diphtheria, and these results are solely and entirely due to the thorough use of the antitoxin in large doses. In most of the large European hospitals in severe cases ten thousand units is a small dose. In the Copenhagen statistics we see that often they run up to twenty, thirty and fifty thousand units, with splendid results. The question of cost is here in Ontario an important one, which must be considered, and it seems to me that it is worth the consideration of this Association whether it would not be well for the Provincial Board of Health to undertake the manufacture of the diphtheria antitoxin for use in those cases where the patient is unable to pay for the serum; as it is at present it often happens that the physician who conscientiously uses antitoxin in a case is very much out of pocket.

Before closing I wish just for a moment to refer to the use of the serum as a prophylactic measure in situations where it is difficult to limit the chances of contagion. That the use of the serum for such a purpose has been successful is amply borne out by the experience of children's homes and hospitals where, before the introduction of the routine injection of the prophylactic dose, diphtheria was almost always endemic. This routine has been notably shown by the experience of the Hospital for Sick Children in Toronto, and it has been the experience of similar institutions elsewhere. Sometimes, however, it has failed, and the probability is that this is due partly to a more than usually rapid excretion of the antitoxin, but partly also to the fact that the serum is an antitoxic serum and not a bactericidal one, and consequently is not so fitted for conferring passive immunity as would a more purely bactericidal one. We may hope that the next thing that we may expect from experimental research is a serum which will be used

purely for prephylactic injection. Wassermann has lately announced that he has obtained a serum of this character, and no doubt it is of a similar character to the one announced by Martin.

Bacteriological research has given us our knowledge of the bacillus, and the treatment of the disease by the antitoxin, and to complete the scientific results of the research we must expect in the near future a serum which will enable us to thoroughly immunize against the infection, and which will enable us to rapidly eliminate the bacillus from the healing mucous membrane. When we have this we will have a body of results which will be a model for the treatment of all the other infectious diseases.

WAISTBANDS AND CORSETS IN THE GENESIS AND TREATMENT OF MOVABLE KIDNEY AND ASSOCIATED PTOSES.*

BY A. ERNEST GALLANT, M.D.

THE Twentieth Century woman, from training, custom and dictates of *Madame la Mode* is compelled to fasten her clothing around the waist. However injurious such a practice may be when these garments are put on over a corset, much greater harm will result if that article be dispensed with.

She may do without hats, she may do without hose,
She may do without gloves, she may do without shoes ;
She may do without lover, she may shorten her days,
But only "Mary Walker" can do without stays.

At puberty, when the girl is rapidly increasing in stature and her menses begin to drain the system, relentless custom adds to the enormous strain by interdicting running, skipping, jumping and playing with boys; healthful exercise may no longer be indulged in; she must be compressed with a corset, her clothing no longer suspended from the shoulders, but hung from the waist by tightly drawn bands, the light, short skirts exchanged for long, heavy, trailing dresses—and we wonder that the health of the filly breaks down when thus hampered, haltered and harnessed. Ere long the plump, rosy-cheeked, vivacious girl becomes the tall, stately, sedate miss—anemic, dyspeptic, constipated, nervous, restless, sleepless; and parents and doctors wonder why, fearing that the heretofore lovely girl is about to be carried off by the "destroyer of happiness and severer of loved ones"—consumption.

As the spinal column lengthens, it should carry upward all the viscera attached thereto, but owing to the weight of clothing

* Synopsis of a lecture delivered before the New York School of Clinical Medicine November, 1902.

and compression at the waist-line this process cannot take place, stretching of the ligaments occurs, the viscera are thereby dislodged and hang at a level much below the normal. On examination, by inspection, we note more or less relaxation of the abdominal wall, flattening above the umbilicus, protrusion below; palpation demonstrates prolapse of one or both kidneys, dilatation of the pyloric end of the stomach with ectopy of the colon and small intestines, first clearly described by Glenard, in 1885, collectively as enteroptosis.

As a logical sequence, pouching of the stomach results in food retention, fermentation, gastro-intestinal indigestion, intestinal inactivity, and autoinfection from resorption of excrementitious matter too long delayed within the alimentary canal, manifested by coated tongue, hepatic torpor, dusky skin, dark, scanty urine, dysuria, frequent headache, general malaise, anemia, menstrual disturbance, defective vision, etc. After the eighteenth to twentieth year, we meet her as a woman, something over five feet high, with narrow chest, shrunken breasts and hips, fifteen to thirty pounds below the average weight; her clothes hanging to a slender body devoid of all graceful outlines.

Mentally and socially on the weather-vane order—alternately optimistic or pessimistic, grave or gay, laughing or crying, warmly confidential or abnormally suspicious; feverishly studious or detesting all study, b(u)oyantly athletic or lolling in bed, weeping over the woes of a Scott's heroine; symptoms so often by loving friends believed to be due to a hypodermic injection of an overdose of love-nitrate administered by Dr. Cupid.

Therapeutic consideration of this subject must include (*a*) the prevention of ptosis; (*b*) the restoration and support of prolapsed viscera; (*c*) the correction of functional derangements; and (*d*) the improvement of general nutrition.

Prophylaxis demands that the corset pressure be so applied and the weight of clothing so distributed as to prevent compression at the waist-line with its injurious traction downward.

When visceral ectopy has already begun or well advanced we must place the sufferer in such a posture as to bring about their replacement, and by orthopedic measures retain them in their proper relation to the diaphragm, etc.

Replacement can be attained by assuming the dorsal posture, and carried to an extreme degree by elevating the hips while lying upon the back, designated the semiopisthotonos posture.

For the support of the ectopic viscera, we have designed a corset to be made from measurements of the patient while in the dorsal posture, fitted and always put on while in the dorsal decubitus, and worn continuously when not lying down. The garment is so constructed that it exerts greatest pressure over the supra-

pubic area, to maintain the organs, moderately curving in at the waistline to hold the kidney well up under the ribs; being made loose and full above the waist to afford ample room for the stomach, and give full play to the heart and lungs. By this means the patient at once derives a sense of support and comfort, which heretofore she has been unable to attain from the use of belts, kidney pads or abdominal supports; and further, the modish outline of her figure is improved to a remarkable degree.

It would be well for every woman to wear a corset of this description: as a prophylactic measure, as a means of minimizing the harmful effects of tight waistbands, and to secure a healthful body poise. The same principle holds good in women who have borne children, with lax, flabby, abdominal walls; after childhood, laparotomy, and in those who suffer from an abnormal deposit of adipose tissue.

Where enteroptosis is associated with well marked neurasthenic symptoms, loss of flesh, etc., it will be necessary to put the patient in bed with the foot elevated, feed on easily digested food, give nerve, heart and general tonics, and daily massage with active and passive motions, until the more urgent symptoms subside, and nutrition begins to improve, when a corset can be put on and the patient get about. After such a seance, it is sometimes surprising what rapid improvement these individuals will show.

The operation of kidney fixation, nephropexy, in other than "surgical kidney" has shown so many failures to fix the organ, failure to relieve the most important symptoms, with a death-rate of from 2 to 5 per cent.; while our results in a large number of cases have been so satisfactory that we feel justified in claiming the corset as the best means of overcoming the deleterious effects of movable kidney and associated ptoses.

60 West Fifty-sixth Street.

CUTANEOUS ANTHRAX.

BY WILSON Y. YOUNG, M.D., TORONTO.

CASES of malignant pustule or charbon being rather rare in Ontario I will give some details of one which came under my notice recently:

Mr. P., an able-bodied man who handled hides and leather for a large tannery, consulted me as to the nature of a swelling on his neck, to the left and about the level of the cricoid cartilage.

History.—On the evening of May 8th there was a minute red spot, or pimple, which had increased to the size of an ordinary boil on the 9th. He then poulticed it, which had no other effect than to make the swelling larger. Sunday morning, May 10th,

just two days after making its appearance, I saw him for the first time. Close examination revealed a slightly depressed, dry, bluish-black, central portion (looking something like what boys call a blood blister) of the size of a ten cent piece, but not quite circular. Surrounding this was a ring of greyish vesicles, the bases of which were about the size of a split-pea, while beyond them again was a red edematous swelling extending for a distance of two inches in all directions. There was only a hot or slight burning sensation, but no pain, as in speaking of the lump the patient took hold of it and pulled it from side to side, also up and down quite vigorously. The temperature was 104.2; pulse 125. Some headache and loss of strength. Though unaware of the serious nature of the disease at this time he seemed to be in a nervous, excited state. The night previous he was unable to sleep, and somewhat delirious.

Malignant pustule was diagnosed, and excision of the affected part advised as the only safe and sure relief for the condition. The little operation which was carried out inside of two hours from first seeing the case was performed thus: The patient was chloroformed and the skin washed with carbolic solution. An outline incision having been made of the size of a silver dollar, the whole mass was dissected up. Several spurting points had to be clamped. The raw surface was dried and thoroughly swabbed with pure carbolic acid, after which it was dressed with sterilized gauze. The temperature was subnormal the next morning at 10 o'clock, and the evening of the same day was 99 deg.

One of the lymphatic glands in the median line below the chin was enlarged, but this passed away and the patient is now well and at work, though the skin has not yet healed entirely. The hides came from Boston, and probably reached there from South or Central American ports, where the disease flourishes. In regard to treatment, ipecac internally and externally has been recommended, but early free removal and cauterization as above holds out the best results for this otherwise fatal disease.

Proceedings of Societies.

SEVENTEENTH ANNUAL MEETING OF THE AMERICAN ORTHOPEDIC ASSOCIATION.

BY B. E. MCKENZIE, B.A., M.D., TORONTO.

THE A. O. A., being one of the departments of the Congress of the American Physicians and Surgeons, met in May in Washington. The weather was ideal for the work and sight-seeing of such an occasion, the attendance large, and the programme of absorbing interest. Dr. Weigel, of Rochester, made a very acceptable presiding officer.

1. *Flat-foot Supports*.—Dr. W. R. Townsend, New York.

There is a general increase in the use of flat-foot supports which are freely advertised in the lay press, are even for sale in the departmental stores, shoe stores, and by instrument makers. There is a great danger, however, in this indiscriminate use of the plates, because a correct diagnosis is essential; otherwise the plate may do harm rather than good. Unless the plates be made specially for each individual, they will fit badly and fail in accomplishing the object in view. If there be an osteitis of the tarsus or ankle, inflammatory rheumatism, sarcoma, etc., instead of flat-foot, the result may be disastrous.

2. *The Surgical Pathology of Genu Varum and Genu Valgum*.—Dr. Wallace Blanchard, Chicago.

The skiagraph shows that the curve in knock-knee and in the opposite condition, is not a simple thing, occurring just at or above the knee-joint, but is made up of several elements, an exaggeration of the normal out-curve of the lower end of the femur, an out-bend of the upper tibia, and a distributed out-bend of the tibial shaft. In genu valgum, the primary in-bend is usually in the upper part of the tibia, but afterwards becomes distributed throughout the shaft. Correction should be made at the apex of the deformity in the tibia. The author believes that Lorenz and Renier are wrong in advocating epiphysiolysis.

3. *Tendon Transplantation, Supplemented by Other Operative Procedures for the Treatment of Paralytic Club-foot*.—Royal Whitman, New York.

The favorable effects of tendon transposition are often temporary, and when good is accomplished it is due to the correction of

the pre-existing deformity, to the subsequent retention, and to the removal of the deforming force, rather than to a permanent gain in muscular power. The attachment of transposed tendons to those of paralyzed muscles should be replaced by direct transplantation into the bone itself. Arthrodesis of the medio-tarsal joint for the prevention of varus or valgus and astragalectomy are recommended in the case of insecurity at the ankle joint, particularly when it is of the calcaneus type.

4. *Acute Atrophy of the Bones and Joints Following Comparatively Slight Injuries.*—Joel E. Goldthwaite, Boston.

Slight injuries are often followed by long impaired function of the affected part, and frequently by permanent disability, the active stage, subacute swelling, pain on motion, with appearance at times suggesting a tubercular process, at other times, rheumatoid disease. X-Ray shows general atrophy of the bones and joints of the part affected and explains the permanent disability.

5. *Some Points in the Treatment of Hip-Joint Disease.*—George B. Packard, Denver.

(a) Traction and fixation of hip diseases are frequently too long continued. (b) After the acute stage has passed, massage and the protected use of the joints are likely to secure a better functional result. (c) The general treatment, meaning medicinal tonics and tissue builders, good diet, fresh air and sunshine, is of the utmost importance.

6. *Hip Disease with Reference to the Combined Treatment.*—R. Tunstall Taylor, Baltimore.

By "the combined treatment" is meant (a) treatment by recumbency to secure better protection of the joint; (b) such operative intervention and use of the antitubercular remedies as will facilitate the local eradication of the disease. Skiagraphic diagnosis is preferable to tuberculin. The anterior incision is made for the purpose of erosion and the tissues are freely treated with formalin. Joint function and the position of the cases reported last year are good beyond expectation. The course of the disease is made more favorable and its duration is shortened. To clear up the diagnosis, examinations are made from the open joint scrapings. Lorenz has criticised the too long traction practised by American surgeons.

7. *Forcible Reposition of Congenital Luxation of the Hip.*—Guilym G. Davis, Philadelphia; H. Augustus Wilson, Philadelphia; E. H. Bradford, Boston; Henry Ling Taylor, New York, N. Y.

The methods employed by Lorenz and encouraged in others by his example have been severe, and it is held that the lines laid down by Paci are safer.

Davis claims that the methods have been accompanied by severe traumatism, paralysis and deaths.

Wilson reported a girl of seven years having double, congenital dislocation, who died in twenty-two hours after the operation, probably from the shock. Much difficulty had been encountered in reduction. There was partial recovery from anesthesia, which was followed by complete consciousness; later there was delirium, collapse, and death within twenty-two hours. In this case, examination of the specimens revealed three fractures which had been produced in the bones about the acetabulum. The fragments, however, had not become displaced, and had the child lived, probably no serious injury would have resulted from the fractures.

Bradford points out that in the manual reduction the method is limited by the surgeon's power and the strength of the resisting tissues. Tenotomy of the ham-strings and adductors has been employed with advantage. Anatomical investigations along this line are required.

Taylor points out that since the visit of Lorenz, more force has been used to reduce dislocation, and to stretch the contracted tissues, and the position of retention is more extreme. In cases observed within the last four months, paralysis of the quadriceps has not been uncommon, and paralysis of the muscles supplied by the anterior nerve has been twice observed. These palsies are a common cause of the slowness in walking after the operation. The paralysis has usually been transient, and some observers have not noted it as a sequel of the operative work.

8. *Lateral Curvature*.—R. W. Lovett, Boston; G. G. Davis, Philadelphia; Joel E. Goldthwaite, Boston; Compton Reily, Baltimore.

Lovett has performed experiments showing that the human spine in its motion behaves as would any flexible rod, permanently bent in one plane. It cannot be bent to one side without twisting, and it cannot be twisted without acquiring a lateral curvature. Curvature to the left is acquired by twisting to the right, and the reverse by twisting to the left. These facts may be used in the treatment of the distortion.

Davis makes a plea for a careful record of personal experiences. He advocates (1) confinement of the patient to bed for a lengthy period of time; (2) weight extension and lateral pressure while in bed; (3) have the patient rise daily and take suitable gymnastic exercises; (4) in cases walking about employ exercises, and if the case is severe, braces.

Goldthwaite points out that the clothing should not be supported upon the tips of the shoulders as is commonly the case. This leads to stoop shoulders, and protusion of the abdomen and of the head, and frequently leading to curvature. Clothing should be supported upon the base of the neck, the shoulders being left free, and thus the muscular strain eliminated.

Reily exhibited a scoliotome, a device for directing in a very

precise and effective manner the great force acting in a corrective way as regards power, rotation and lateral curvature.

Great interest was manifested in the discussions which had any reference, near or remote, to the work done by Lorenz; and those who took part in the discussion, while candid criticism was expected and was made, expressed a hearty and keen appreciation of the valuable work which Lorenz has done, especially in the surgery of congenital dislocation of the hip.

THE SECOND QUARTERLY MEETING OF THE PROVINCIAL BOARD OF HEALTH OF ONTARIO.

THE second quarterly meeting of the Provincial Board of Health was begun at the Parliament Buildings, May 29th, at 11 a.m., and was continued on the following day. There were present: Drs. Vaux (chairman), Cassidy, Kitchen, Oldright, Douglas and Bryce (secretary). After the minutes of the first quarterly meeting had been read and adopted, correspondence was read by the secretary:

Toronto Junction reported a severe siege of contagious diseases since December 1st. Scarlet fever had been responsible for thirteen deaths, a record that had not been equalled in any part of the province. The scarlet fever patients were kept in a tent at the Junction, which had proved satisfactory in preventing contagion. The tent had been used during March, forty-six cases having been treated in it. In apportioning the expense, the local Board of Health supplied the tent, bedding and fuel, while the parents of the patients supplied medical attendance, medicines, nurses and food.

Teeswater reported the failure of the local Board of Health to placard scarlet fever cases. There had been 100 cases since January 24th.

Minden wrote asking for literature dealing with contagious diseases. A serious outbreak of scarlet fever there resulted in thirteen deaths during March, April and May. The local board had been unable to cope with the outbreak.

Toronto City Council wrote protesting against some of the recently published regulations of the board respecting scarlet fever. Dr. Sheard, Medical Health Officer, Toronto, also wrote, objecting that Clause 5 of the scarlet fever regulations was mandatory and compelled a medical health officer to order the removal of a case of scarlet fever to an isolation hospital.

A report from Lindsay was received stating that they were unable to build an hospital for contagious diseases this year. Dr. Bryce said that it was strange that the town could not provide an hospital for contagious diseases in view of there having been given

a General Hospital free of any expense to the town by Messrs. MacKenzie and Ross.

He had experienced cases of obstinate local physicians who would send out children who had scarlet fever, as soon as they looked well, and then they went to school and spread the disease. He instanced a doctor in the town of Port Hope as one of the most pronounced offenders.

The afternoon session was devoted to the hearing and discussion of Dr. Bryce's annual report as Medical Health Officer for the Province, which was adopted. The report stated that the epidemic of smallpox, which broke out in Galt last autumn, and originated in a case coming from Cleveland, was accountable for 142 cases and 11 deaths, of which 86 cases and 6 deaths were in Galt. For twenty-one years isolation and vaccination had been the chief weapons used in combating smallpox. From 1882 to 1900 there were 135 outbreaks, 1,085 cases, and 170 deaths. In 1901 there were 199 outbreaks, 2,500 cases, and 12 deaths. In 1902 there were 1,800 cases.

No case has been heard of which was officially recognized as having been taken from Ontario into a neighboring State, all going to show the efficacy of vaccination.

Dr. Bryce also alluded to the anti-vaccination campaign now carried on in Great Britain, the United States and in Canada. He quoted extensively from the statistics of these countries, showing that physicians and health authorities had reason to be satisfied with the results obtained from vaccination, and that in view of the facts, no unprejudiced person could fail to recognize in vaccination and revaccination our principal weapon in preventing, and limiting the spread of, smallpox.

Scarlatina had prevailed seriously during the year, but the latest reports showed a decided decline. During the four months of 1903 there had been 350 deaths. Dr. Bryce said that the importance of the measure making the local medical health officer responsible for determining the kind of quarantine necessary had been well established, and its wisdom proved during the recent outbreak. This view was substantiated by the Mayor and Medical Health Officer of Ottawa, and the Medical Health Officers of Hamilton and London.

A table showing the percentage of cases of smallpox, scarlet fever, diphtheria and typhoid, treated in hospitals in various large cities, was given by Dr. Bryce. In reference to scarlet fever the percentages are: London, Eng., 78.7; Liverpool, 54.9; Birmingham, 80; Dublin, 100; New York, 7; Toronto, 40.7; Ottawa, 56.3.

In the hospitals of London in 1901, the percentage of admissions out of total cases was as follows: Smallpox, 97.2; scarlet fever, 78.89; diphtheria, 74.85; enteric, 45.34.

The available figures and facts, Dr. Bryce said, apart from experience in handling smallpox, scarlet fever, and diphtheria, in this Province seemed to settle effectually any question of the necessity for dealing with a serious epidemic disease in a thorough manner, and made it apparent that medical health officers must be empowered, as in smallpox, to provide means for separating cases of scarlet fever from their families.

After reassembly on Friday at 10.30 a.m., the board went into committee of the whole on two bills, which were to be brought before the Legislature, then in session. The first was Mr. Kribs' bill to do away with compulsory vaccination.

It was decided to furnish all useful information on the subject to the Provincial Secretary.

Dr. Pyne's bill to amend the Public Health Act was next taken up. The bill provides, first, that all meat, animals, poultry, game, flesh, fish, fruit and vegetables brought into a municipality shall be taken to such places for inspection as the Local Board of Health may deem necessary, and that persons selling such food shall have it inspected.

Dr. Bryce said the present Act provided for the inspection of animals without the unnecessary trouble to the farmers of bringing them to any special place. The inspection of fish and vegetables could not be carried out. The board was persuaded that such a measure would not pass the Legislature, because of its impracticability.

Another clause of Dr. Pyne's bill would give power to the medical health officer, or his inspector, to enter lodging-houses, tenement-houses, or laundries, in the municipality, at any hour of the day or night, in order to ascertain the number of occupants of such places, and whether each inmate was or was not provided with 500 cubic feet of air space. The board was of opinion that places such as those mentioned in this clause of the bill should be licensed and registered, and that their fitness for the purpose intended should be ascertained at the time when an application for a license was made. This is the system which is carried into effect in England under the Lodging-house Act.

In the afternoon the board granted the application of Ottawa East to discharge sewage into the Rideau River, just above its junction with the Ottawa River. Tiverton was allowed to extend its cemetery and to drain the same into a stream at a point lower down than an adjoining farm.

Dr. Cassidy read a report of the Committee on Epidemics, explanatory of the much-complained-of mandatory powers of the medical health officer mentioned in Clause 5 of the scarlet fever regulations. It is as follows:

REPORT OF THE STANDING COMMITTEE ON EPIDEMICS.

Your Committee on Epidemics, in order to render clear the bearing of the scarlet fever regulations, which became an order-in-Council on March 5th, 1903, begs leave to report that the regulations are only intended to make the operation of the Public Health Act definite and clear in several particulars, which have been hitherto somewhat imperfectly understood.

These several particular points are:

1.—That the medical health officer has clearly been placed in a position to carry out the Act relating to scarlet fever, and is required to report to the Provincial Board of Health failure to supply facilities therefor on the part of local boards of health.

2.—That the medical health officer, and not the attending physician, nor the local board of health, is placed definitely in a position to determine the character of the isolation of cases as called for by the Act.

3.—That he is empowered to isolate patients for a definite period of six weeks, or longer, if the circumstances require it.

4.—That the isolation to be provided is that defined under Section 106 of the Statutes, which has existed for twenty years in the Act, and which states that local boards of health must provide a temporary hospital for contagious diseases.

5.—That the regulations provide that greater stringency in the matter of the isolation of patients be insisted upon on the part of the medical health officer.

6.—That while the medical health officer is required under the regulations to utilize such hospital accommodation as is provided under the Act, he is, at the same time, allowed under the statute to use his judgment in the exercise of such power.

7.—That in order that any misconception as to the meaning of the regulations may be removed from the minds of the public, and of the medical health officers, your Committee would recommend that in the printed copy of the regulations issued by the board the following foot-note be inserted:

"It was not the intention of the Provincial Board of Health, in framing the regulations, to, in any way, limit the discretionary powers given the medical health officer under the Public Health Act, in Section 93, R.S.O."

8.—Your Committee would also invite earnest attention to the fact that efficient isolation, as facilitated by ample hospital accommodation, has materially lessened the death and sickness rates and effected immense savings in many ways. The statistics given by the Secretary in his last quarterly report admirably show this, and also show the great advances made in other countries in providing the municipal accommodation for which we are now striving:

9.—Your Committee would like that the opposite side of the

question should be presented to the public; the obligation of the body politic to provide facilities, so that the wage-earners may be allowed to carry on their work, without endangering the lives and health of other wage-earners.

All of which is respectfully submitted.

J. J. CASSIDY.

WM. OLDRIGHT.

P. H. BRYCE.

The report was received and adopted.

Dr. Cassidy also read an interim report of the Committee on Epidemics, respecting the hygiene of barber shops, stating that a final report of the Committee would be made on this subject at the next quarterly meeting.

The plan for providing water works for East Ottawa was approved of.

The following standing committees were appointed for the year:

Epidemics—Drs. Cassidy, Oldright and Bryce.

Water Supply—Drs. Douglas, Vaux and Bryce.

Sewerage—Drs. Kitchen, Bryce and Oldright.

School Hygiene and Ventilation—Drs. Cassidy, Oldright and Bryce.

Legislation and Publication—Drs. Bryce, Douglas and Cassidy.

Foods and Drinks—Drs. Vaux, Kitchen and Bryce.

It was intimated by the Secretary that the next meeting of the board would probably be held at Peterboro' early in September next, at which place and time the meeting of the Association of Medical Health Officers would also be held.

The board then adjourned.

A New Building for Messrs. Howards & Sons.—Messrs. Howards & Sons, the well-known pharmaceutical house of Stratford (London), are erecting new works at Hford in Essex, where they have acquired some thirty-three acres of land with excellent river and railway accommodation. They have already built a factory for their branch house, Messrs. Hopkins & Williams, of Hatton Garden, London, E.C., which is thoroughly up to date and fitted up with all the latest apparatus for the scientific preparation of all kinds of pharmaceutical, photographic and fine chemicals. Two new partners, Messrs. Geoffrey Eliot Howard and Bernard Farmborough Howard were admitted in 1902 to the firm, which still upholds the sound old principle that all work of whatever description should be carried on under the close personal supervision of the partners themselves. No market in the world is prized more highly by Howards & Sons than Canada, of whose men of business courtesy and loyalty are such strong characteristics.

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month.

VOL. XIV.

TORONTO, JULY, 1903.

NO. 1.

Editorials.

VACCINATION AND SOME OF ITS SHORTCOMINGS.

THAT vaccination is the principal and all-important protective against smallpox may be said to be a truism. In fact, no person, whose opinion on health matters is worthy of the slightest consideration, holds the contrary opinion.

Cleanliness, sanitation and isolation are likewise excellent preventives. Unfortunately, however, for the gospel of cleanliness and sanitation, their very best exponents catch smallpox as readily

as the dirtiest inhabitants of the slums, if they are not protected by vaccination or a previous attack of smallpox. The practice of isolating a smallpox patient is excellent; but the attendants, if not immune, will catch the disease. Besides the isolation of an unprotected population without vaccination would be prohibitive, on account of the expense.

To limit the spread of smallpox in a populous centre no means is so effective as general vaccination. Another reason why people should be rendered immune to smallpox by vaccination is, that this disease is contagious before the eruptive disease has appeared, when the infected person is not an object of suspicion. It has been conveyed to unprotected persons by infected persons, who presented no skin lesions at all. If smallpox has been known to exist, and a patient has been exposed, and has the other symptoms of the disease, even though the eruption has not appeared, it is of the first importance that all unprotected persons should be vaccinated, segregated and kept under close observation until the period of twenty-one days is passed, when the danger may be considered as over.

As the members of the Provincial Board of Health have expressed strong opinions in favor of the vaccination of infants and school children, together with the vaccination of non-immunes, who have been recently exposed to smallpox, it is only fair that, as far as they can, they should see that vaccination is properly carried out. The reasoning in favor of the necessity of vaccination is beyond cavil, but the impurity of vaccine, the careless and even reprehensible manner in which the operation is sometimes done, and the neglect of obvious precautions to keep the vaccination wound clean give cause for alarm and oftentimes produce actual disease.

In regard to the first point, no vaccine should be put on the market until it has been tested on mice or guinea-pigs, and proved to be free from the agent of tetanus. If the boiled gelatine made from calves' feet can transmit tetanus by hypodermic injection, may not the Nicolaïer germ be also mixed with vaccine pulp taken from a calf's abdomen? (*Vide* editorial note at p. 52.) We do not say that it is frequently present in vaccine, but contend that it is the duty of the manufacturer to look for it, and prove that it is not present in his product before he sells it. A vaccinator should be able to say: "This vaccine, which I am using is free

from tetanus. Should that disease appear in a person I vaccinate it is probably caused by post-vaccinal infection of the vaccination wound."

Improper methods of vaccination are common. A medical health officer, who vaccinates twenty persons of a morning cannot and will not attend to the cleansing of their arms as carefully as if he were vaccinating two or three persons. Besides he has not the time or the inclination to attend to the minutiae of careful aseptic vaccination. In Galt, Ont., where serious results followed the operation, it was stated that improper methods of vaccination were responsible for bad results. In the case of the employees of one of the leading manufacturers of Galt, who had been the greatest sufferers from vaccination, it was stated to the Provincial Board of Health by a prominent physician, that the operation was done at the noon hour, when the arms of the operatives were covered with dust and oil, and that the same towel was used to wipe the arms of the men. This act, it was supposed, had caused all the sickness, and it would be passing strange if such carelessness had not caused some sickness.

Assuming that the vaccine used in a given case is pure and that the operation is well done, instructions should be given to keep the vaccination wound in a clean condition. Done by parents or guardians for little children and infants this should not entail much difficulty—more difficulty will be encountered in dealing with adolescents or adults.

The boy who uncovers his vaccination sore for the edification of his playmates, or who exposes himself in gardens, fields or stable-yards, where the germ of Nicolaier abounds, may be inoculated with tetanus, be the vaccine used on him never so pure. A workman or workwoman is very much incommoded by a vaccination sore, which interferes with work, is rendered sorer by hard work, and which, unless kept clean, may be inoculated with the germ of some disease. If any evil results follow vaccination, they naturally redound to the discredit of the operation. Hence the paramount necessity of securing the three factors, which make for successful vaccination—pure lymph, careful vaccination and subsequent treatment of the sore. The first necessity—pure lymph—would really call for Governmental supervision of vaccine farms; the second—careless vaccination—should be punished by a penalty; the third—inattention to, or neglect of, a vaccination sore—

would not be so prominent an evil if vaccination were generally done during infancy and childhood. In all cases, however, it should be the duty of the vaccinator to inform the parents or guardians of a child he has vaccinated, or any grown persons whom he has vaccinated, that the resulting sore should be kept clean and treated until it is healed. Neglect to give this warning should be regarded as an offence.

J. J. C.

FOURTH OF JULY LOCKJAW.

TETANUS is becoming rather common in Chicago, seven deaths from that disease having occurred in five weeks, from April 25th to June 6th inclusive. The fatal accidents were traced to wounds caused by firearms, particularly to toy pistols, bits of percussion caps, etc.

From an account published in the *Bulletin of the Health Department*, of Chicago, it appears that only twelve cases of tetanus from similar causes had occurred up to the end of July, 1902, and only four in 1901, when a proclamation issued by the mayor of that city against the use of toy pistols, percussion caps, and other noise-making agencies was enforced. In 1901 there were twenty-four cases.

As our readers know the Nicolaier germs are both numerous and widely distributed. They are found in the earth (garden soil in particular), in manure, street dust and rubbish. The fact that these germs are anerobic explains why tetanus in man is a comparatively rare disease, and also why it is most apt to follow punctured and contused wounds. Anders says: "It may be assumed that an injury, however slight, serves as the portal of entrance for the poison."

When the germ is carried beneath the skin and buried in the flesh, as in the wounds caused by percussion caps, rusty nails and similar agencies, the air is excluded from the wound. The germs are roused to activity, attack the adjoining tissues, and develop the toxin, which "is carried mostly along the nerves to the spinal cord" (Stintzing).

The fact that the deadly poison of tetanus is developed at the site of infection gives to the local measures of treatment, adopted in punctured wounds of a suspicious character, supreme importance.

The agents employed should be brought into contact with every portion of the wound, so that punctured wounds must first be laid open. It may be necessary to excise the wound or even to amputate in some cases. It would certainly be in keeping with the rules of aseptic surgery, if a surgeon called to such a case, after an anesthetic had been given, were to open up the wound, and wash it with peroxide of hydrogen, followed by the application of pure carbolic acid. Wounds of the kind caused by toy pistols, percussion caps, or by rusty nails, should not be closed up. To do so is to invite the anerobic activity of the germs of tetanus, which may have been introduced into the wound by the foreign body.

J. J. C.

TORONTO UNIVERSITY CONVOCATION HALL.

THE following editorial appearing recently in *The News* so well expresses the feeling of all members of the profession, no matter whether they are Toronto or Trinity graduates, that we feel that we cannot do better than reproduce it *in toto*:

The announcement made at the meeting of the Alumni Association, that the Provincial Government had promised, through the Hon. Mr. Gibson and the Hon. Mr. Harecourt, to add \$50,000 to the \$50,000 subscribed by the Alumni and friends of the University to provide for a suitable convocation hall, will be warmly received, not only by the Alumni, but also by the people of the Province. The old convocation hall, which was destroyed by fire in 1890, was the chamber where all the stately and ceremonial functions of the university were conducted—functions which were striking events in undergraduate life, and it became in consequence to the Alumni of earlier years a spot on which was focussed, as it were, in later life, all the hallowed associations that gathered about student life in University College. The want of such a hall has been severely felt during the last thirteen years. The number of students is now at least three times what it was in 1890, and the number of functions which an enlarged university life has rendered necessary, has very greatly increased, while there has not been, nor is there now, an assembly room in the vicinity of the university which could at all accommodate them. The other university buildings, laboratories and lecture rooms have multiplied, but that provided only segregation and divi-

sion of the student body so long as there was no central spot to cultivate and foster associations which in after life inspire the deepest loyalty and sacrifice on the part of the graduates. The university is once again to have a noble Convocation Hall, a centre of common life, and, at the same time, a chamber for all the stately ceremonies, the memories of which will linger in the minds of the graduates to be as hallowing and ennobling influences.

For the result the fullest credit is due in the first place to the Alumni Association, which has impressed the Legislature with a sense of the importance of the university to the Province. The association also must find only satisfaction in the attitude of the leader of the Government and the leader of the Opposition regarding the claims of the university on the Province, and it must be doubly gratifying to the Alumni that they have achieved so important an object as the provision for a new Convocation Hall. No graduate or friend of the university ever doubted the sincere loyalty of the Hon. Mr. Gibson and the Hon. Mr. Harcourt to their *alma mater* or questioned their desire to do what was possible to aid the university. The public has been educated to larger views, and they have seized the occasion to do a great service to the university, the remembrance of which will last long after their day. And the Premier also should not be forgotten in this matter. In acceding to the proposition of the grant of \$50,000 he has earned the good-will of all friends of the university.

THE ONTARIO MEDICAL ASSOCIATION.

THE twenty-third annual meeting of our Provincial Medical Association, which convened in Toronto on the 16th, 17th and 18th of June, can be safely characterized as a success. The attendance was two hundred or a little over, and what the meeting perhaps lacked in numbers it made up in general enthusiasm and that spirit of *bon camaraderie* which should prevail at a convention of this sort. The increased attendance this year over that of 1902 was eighteen, and seventy-two over that of 1903. The papers were almost all good, many eliciting considerable discussion, a feature which is most welcome, and to be earnestly encouraged. The presence of Dr. J. H. Musser, of Philadelphia (now President of the American Medical Association), and Dr. T. S. Cullen,

of Baltimore, who is always welcomed back to his old home, added greatly to the enjoyment of the Association. The social features were not forgotten, and the Committee, who had charge, are to be congratulated upon the success of the smoker in St. George's Hall on the Tuesday evening, and the luncheon at the King Edward Hotel on Wednesday, and the cruise the same afternoon in the *Cleopatra*, which was kindly loaned by Mr. Gooderham for that occasion. The now-retiring President, Dr. Mitchell, and the General Secretary, Dr. Harold C. Parsons, filled their offices with the



SNAPSHOT OF THE RETIRING PRESIDENT AND GENERAL SECRETARY OF
THE ONTARIO MEDICAL ASSOCIATION, ON BOARD THE
S.S. *CLEOPATRA*, JUNE 17th, 1903.

greatest acceptance. We are pleased that Dr. J. F. W. Ross, of Toronto, was elected President for the ensuing year, and feel sure that he will fill the chair with the dignity that attaches to so high a position.

We regret that, owing to the *JOURNAL* being issued promptly on the first of each month, it is impossible for us to give our readers the full stenographic report, as made for us, but can assure them that what does not appear this issue will certainly have a prominent place next month.

The following officers were installed for the ensuing year: President, Dr. J. F. W. Ross, Toronto; Vice-Presidents, Dr. Burt (of Paris), Dr. Turnbull (of Goderich), Dr. J. C. Connell (of Kingston), Dr. J. H. Elliott (of Gravenhurst); Secretary, Dr. C. P. Lusk, of Toronto; Treasurer, Dr. A. R. Gordon, of Toronto.

W. A. Y.

EDITORIAL NOTES.

Tetanus from an Injection of Gelatinized Serum.—Professor Dieulafoy reports in *La Presse Medicale*, May 13th, 1903, a case of tetanus, which was traced to a hypodermic injection of gelatinized serum. The patient, who was phthisical, had hemoptysis, which did not yield to ordinary remedies, and an injection of gelatinized serum was made in the upper part of her left thigh. The solution had been carefully prepared at the hospital pharmacy, and had been boiled for over half an hour. The injection was also made with the usual aseptic precautions. Eleven days after the injection of this solution the patient was attacked with tetanus, and so violently that death ensued in twenty-two hours. Aerobic cultures made from the pus of an abscess, about the size of a filbert, found at the site of the injection in the woman's thigh, failed completely to reveal the bacillus of Nicolaier. When, however, the pus which had proved sterile in aerobic cultures was deeply sown in long tubes of gelose, not inclined, after the procedure of Liborius, and after twenty-four hours' sojourn in the oven and protected from the air, pure cultures of the bacillus of Nicolaier were obtained. Several animals which were subsequently inoculated with this pus, died of tetanus in less than twenty-four hours. From this case and twenty-two other cases of tetanus, reported in the continental medical press during two years, all of which have been traced to the hypodermic use of gelatinized serum, made from commercial gelatine, Professor Dieulafoy concludes that the latter product contains the germ of tetanus. This is certainly a rather serious charge to make against the hypodermic use of calfsfoot jelly. Administered per os it does not seem to be open to the same charge. As is well known the gelatinous matter of the feet is extracted by boiling. It appears that Merek, the German manufacturer, uses extra precautions, in order to obtain a pure gelatine. Fresh calves' feet are boiled for an hour at 248° F. The pure gelatine obtained is filtered and poured into tubes, which are sterilized on the two following days for an hour at 248 F. A great

quantity of this preparation is injected hypodermically into mice and guinea-pigs and, if the animals remain sound twenty days after the operation, a one per cent. solution of gelatine made from this gelatine is placed on the market. Professor Dieulafoy thinks, that the preparation of gelatinized serum ought to be regulated by the laws governing the preparation of therapeutic serums; but, even under such circumstances, he would not prescribe it.

The Brain in the Hand.—The difference in diagnostic skill between one surgeon and another is often due to a difference in the cultivation of the tactile function of the fingers. If this be true, the hand, that part of the body by which we come most frequently in contact with things outside of us, deserves a very attentive training, so that it may readily bring intelligence to the brain centre where its action can be recognized and appreciated. A writer in the *Indian Lancet* says: "Some time ago a *post-mortem* examination of the hands of a blind person demonstrated the existence, in the ends of the fingers, of convolutions of grey matter similar to that of the brain. The fingers had by their long-continued concentration of the consciousness upon their action developed, in a marked degree, the machinery by which the brain takes cognisance and acts intelligently. Truly there was a brain in the hand. What was found in this case must exist in the hand of every one in proportion to the training in intelligent activity." Mechanical workers learn to estimate by the fingers differences in thickness, not visible to the untrained eye. Thus when a letter is in the wrong box, the brain of the type-setter sends the fingers there; but the fingers discern the error and report to the brain by the hesitation or failure to act, bringing the attention of the brain from some vagrant fancy and securing its co-operation in setting the matter right. Teachers of clinical medicine doubtless consider this side of their office. Educationists, such as Chadwick, seem to have proved that the receptivity of the mass of students for direct class teaching was limited to three hours, and that whatever time above this is devoted to books is worse than wasted. Although when one considers the enormous amount of book-work now required of the medical student, it would be difficult to apply the three-hour rule to him; it may well be that a half-timer who worked conscientiously would make a better showing at an oral examination than a mere crammer. At all events the medical practitioner has to earn his living largely by the exercise of the brain in the hand. The obstetrician and the surgeon soon learn to rely with confidence on the trained touch. All surgeons

would do better and more conscious work, if they trained their hands more constantly and thoroughly in the estimation of the phenomena of the human body.

Jonathan Hutchinson's Theory of the Cause of Leprosy.—

The editor of the *Indian Lancet* gives no credence to the theory propagated by the English surgeon, Jonathan Hutchinson, that leprosy is bred from fish-eating. He says: "Professor Hutchinson proposes (1) to inquire into the trade in fish, the modes of curing, the quantity and destination. (2) To see whether the statement, that fish is not obtainable in certain districts is true or not. (3) To inquire of lepers whether lepers ever have been salt or dried fish eaters. (4) When denied, to inquire when leprosy began and under what circumstances. (5) To estimate proportion between high and low caste lepers. (6) To visit places where leprosy is said to be increasing. (7) To determine commensal communication from *de novo* development. (8) To inquire for sections or hill tribes free from lepra, who live adjacent to sufferers. There is one other inquiry, viz., to see whether the statement made by certain Brahmins, and so on, that they have never eaten fish, is trustworthy." The editor of the *Indian Lancet* continues: "We trust the Professor will be able satisfactorily to prosecute his inquiries; but after all it would be better to stay in India and make a permanent life business of the undertaking. The man who discovers the originating cause or causes of leprosy will be valued as worthy of a monument in marble in every city of the world, since with the discovery of the origin and cause, the application of a specific remedy or preventive method will follow. That man with all his boasted gifts has failed to discover them is also evident in the most painful manner, in this as well as in other directions." Experience in India is opposed to the influence of fish-eating in causing leprosy. The disease has been prevalent among vegetarians, as well as among fish and flesh eaters. In Russia inland tracts of country are as greatly scourged by this disease as any of the seaport towns and cities. In India it is considered to be hereditary, contagious and infectious.

The Care of Milk in Hot Weather.—Dairy companies should bind the farmer by contract to produce milk under hygienic and cleanly conditions, with facilities for sterilizing, aerating, cooling, bottling and delivering milk to the consumer free from contamination. It is also of the first importance, that the water supply on a dairy farm should be free from diarrheal or enteric poisoning. We

learn from the Medical Health Officer of Toronto, that several cases of typhoid, which occurred in this city last November, were, after careful investigation, traced to milk sent to Toronto from a farm the well water of which contained the bacillus of typhoid fever. The bacillus was also found in the milk supplied from this farm. This farmer was ordered to send no more milk to Toronto. There is no other way.

J. J. C.

Toronto's Watery Grave.—Toronto physicians no doubt have been aware, owing to several recommendations filed by Coroners' juries last year, that the various apparatus used in life-saving along the island and lake-front were worn out, lost, stolen, or strayed. The inspector of this department, Mr. W. C. Newman, has given recently a very alarming report. There are thirty-eight life-saving stations in all (mainland and island included), and at seventeen of these a part of the necessary outfit is missing. He also makes some valuable suggestions in reference to permanent ladders, made so by securely fastening uprights between the whale pieces of the wharf and using 5-8 inch round iron for steps. Where ladders are impracticable, chains of 1-2 inch iron looped along the wharf, securely fastened by ring bolts, Mr. Newman thinks, might aid in the prevention of drowning accidents. He also recommends a life-saving launch to patrol the Bay. It is to be hoped that this question will be taken up immediately by the city and an efficient life-saving equipment provided at each of the established stations.

W. A. Y.

PERSONALS.

DR. G. S. RYERSON attended the Convention of United States Military Surgeons last month.

MAJOR DR. GEO. A. PETERS spent two weeks last month in camp on Niagara Common in command of his regiment, the Toronto Light Horse.

A DONATION of \$5,000 from Mr. D. D. Mann has been received by the committee of the University Alumni Association engaged in getting subscriptions for the convocation hall.

Much sympathy is felt for Dr. and Mrs. C. J. Hastings, of Wellesley Street, on account of the death of their little son, who died on June 3rd, owing to an injury resulting from a fall.

RICHARDSON-RUTHERFORD—In Aurora, on June 16th, 1903, by the Rev. E. A. Pearson, M.A., Dr. Chester Charles Richardson to Elizabeth Lauder Rutherford, daughter of J. R. Rutherford, M.D.

DR. JOHN CREASOR, who left Toronto about a year or more ago to practise in Owen Sound, has returned to the city, and received an appointment under Dr. Chas. Sheard, in the Medical Health Office, City Hall.

DR. AND MRS. J. H. COTTON, of 260 Spadina Avenue, will spend the summer in Germany and Switzerland. They sailed on June 27th, on *S.S. Tunisian*, and will return home about the first week in September.

DR. WM. NATTRESS was P. M. O. at camp last month, Dr. J. Milton Cotton taking his duties at Stanley Barracks in his absence. Among the other Toronto doctors at camp in June were Drs. J. T. Clarke, F. Fenton, and J. T. Fotheringham.

THE marriage of Miss Ethel Martin, daughter of the late Dr. C. E. Martin and Mrs. Martin, of Carlton Street, to Dr. Alexander Piree, F.R.C.S., of London, Eng., son of the late Dr. Piree, of Dundee, Scotland, took place on May 29th, at St. Peter's Church, Toronto.

THE following Canadians have received licenses from the Royal College of Physicians of London, Eng.: E. W. Allin, Trinity Medical College; M. R. Blake, Trinity University; O. C. Dorman, Dalhousie University; S. D. Mackenzie, McGill University; F. S. Pope, University of Toronto; E. G. H. Weir, University of Toronto.

IN our review of Dr. J. J. McGrath's *Surgical Anatomy and Operative Surgery*, appearing in last month's issue, we forgot to add the name of the publishers, The F. A. Davis Co., of Philadelphia, from whom the work can be obtained direct, or through any other firm of medical booksellers.

DR. FRED. W. MARLOW, who recently took the fellowship of the Royal College of Surgeons of England, is said to be the youngest candidate who has ever obtained that very high standing. Dr. Marlow is a recent graduate who was educated at Trinity Medical College, and is an M. D. and M. A. of Trinity University.

News of the Month.

GOVERNMENT AID FOR TORONTO UNIVERSITY CONVOCATION HALL.

"It is too late to have legislation this year, but with reference to our interview with you, and having regard to our conversation with the Premier on the subject, we feel at liberty to give you the following assurance. On the assumption that at least \$50,000 has been raised by the alumni towards the new Convocation Hall, and on the further assumption that the cost of such new building finished in every respect, and equipped, will not exceed in all the sum of \$100,000, having in view the desirability of a new Convocation Hall for convocation purposes and alumni and other gatherings, in order that the work may not be delayed the Government, so far as they can do so, undertake to provide \$50,000, payable in five annual instalments, to be provided in the estimates from year to year during the next five years, commencing with \$10,000 in the estimates of next year. Yours very truly, J. M. Gibson, R. Harecourt."

This letter, addressed to Dr. McLennan, Secretary of the University of Toronto Alumni Association, was received with loud applause when read to the annual meeting on the evening of June 11th, and marks the completion of one of the great aims of the graduates for the past couple of years.

Dr. Reeve, President of the Association, who occupied the chair, referred to three important objects which the Association had accomplished, namely, the establishment of branch associations, thereby making the influence of the University felt throughout the country; the establishment of the Monthly, which is now on a paying basis, and the completion of Convocation Hall Fund, amounting in all to \$100,000. One thing remaining to be done is that the Association must educate the people to see that the University is indeed one of the most valuable assets of the country. He warmly thanked the Secretary, Dr. J. C. McLennan, for his exertions on behalf of the Association, and Mr. W. T. White, Manager of the National Trust Company, for enlisting the financial support of several men of means. They would also cherish always the names of Prof. Goldwin Smith and Mrs. Smith.

Sir W. R. Meredith, the Chancellor, took advantage of the occasion to speak plainly upon the University question. Leaving

aside the School of Practical Science, the University receives annually \$160,000 for doing similar work to the University of Michigan, which receives \$576,650; Wisconsin, \$539,656; California, \$472,304. The University of Toronto's income was actually only one-third of the lowest of these other universities. The Provincial University would possess a department of forestry. He trusted these obstacles would be speedily removed, for the claims of the Provincial University, with its allied college at Guelph, must be recognized in preference to Queen's, which has no claim whatever to the establishment of a school of forestry. The department of physics needs new quarters. Something must be done for instruction in botany. He thought the city of Toronto might very well join with the university in establishing a horticultural garden. The Chancellor urged the establishment of residences for women and for men, and hoped that some public-spirited men would join in raising the funds. He added that a department of research was also much needed.

He had nothing but the most friendly feelings towards Queen's, but he was glad to hear the Premier's declaration that there should be only one Provincial University. (Applause.) That policy was satisfactory, but he would be better pleased if there was not a plain departure from it, that was, the School of Mines at Kingston. The School of Practical Science, with 346 students, receives only \$17,400, while the School of Mines, with 130 students, receives \$23,500. That was a very unfair division. He strongly urged that the School of Practical Science should receive better treatment. This School of Mines means the duplication of the Provincial University in its most expensive part. It was a great mistake, and a departure from the policy of one Provincial University. He prophesied that within a year Trinity and its School of Medicine would be federated with Toronto. He hoped the Government would not hamper the trustees in the money required, for he was satisfied that the Legislature and the people would not begrudge a liberal supply of funds.

TORONTO UNIVERSITY FACULTY OF MEDICINE EXAMINATIONS.

JUNE 5TH was a momentous day for hundreds of students in Toronto. As, in fear and trembling, they awaited the announcement of the results in the annual examinations, it seemed to many as though, as they entered the portals of the dear old building, they could see inscribed therein the ominous warning, "All hope abandon ye who enter here." The confidence with which the last paper had been written and folded and handed in had wilted away with the passing of days, and it was with anxious hearts that several

hundreds students craned forward, a surging, panting crowd of girls and men, as they listened and caught the names that Registrar Brebner had before him. And while so many went home with the whole world seeming less cruel than a short time before, there were also those whose hearts were left aching with the disappointment of failure, and whose only reward for night after night and day after day of bitter study and struggle was the buoyant, though sincere, handclasp of their more fortunate fellows, and their consoling, "Too bad, old chap, but better luck next time, you know." The newspaper offices, too, were favored with many an anxious visitor, and the morning's papers were also eagerly awaited by the hundreds of students who have already gone to their homes throughout the Province.

The Senate of the University of Toronto met and adopted the reports of the examiners in all faculties and departments, with but every few exceptions. The results in all four years in arts and in the fourth and third years in medicine are as below.

Under a recent regulation of the University candidates who have succeeded in passing in a majority of subjects of their year, together with any back subjects, are allowed standing in the subjects in which they pass, but are required before proceeding to a higher year to write off the stars, with the exception of two, which may be carried to a higher year.

Group I.—Medicine, Clinical Medicine, Pathology and Therapeutics—1, J. A. Oille; 2, G. E. Wilson, S. C. Yin; 4, W. E. Gallie; 5, F. C. Neal; 6, R. P. McLaughlin; 7, W. A. Graham; 8, J. Phillips; 9, J. D. Leeson; 10, E. M. Walker, M. H. Langs; 12, N. D. Buchanan; 13, C. E. Knister; 14, G. A. Winter, E. A. Gray.

Group II.—Surgery, Clinical Surgery, Surgical Anatomy and Pathology—1, J. A. Oille; 2, M. H. Langs; 3, W. A. Graham, S. C. Yin; 5, J. Phillips; 6, G. E. Wilson; 7, R. P. McLaughlin; 8, F. C. Neal; 9, E. A. Gray; 10, W. E. Gallie; 11, N. D. Buchanan.

Group III.—Obstetrics, Gynecology and Pathology—1, J. Phillips; 2, J. A. Oille, G. E. Wilson; 4, M. H. Langs; 5, F. C. Neal; 6, J. D. Leeson, S. C. Yin; 8, W. E. Gallie; 9, E. A. Gray, G. A. Winters; 11, W. A. Graham; 12, N. D. Buchanan; 13, J. H. Hamilton; 14, C. L. Constantinides; 15, T. D. White; 16, E. M. Walker; 17, F. A. Ross.

Group IV.—Medical Jurisprudence, Toxicology, Hygiene and Medical Psychology—1, G. E. Wilson; 2, J. A. Oille; 3, J. D. Leeson; 4, J. Phillips; 5, E. A. Gray, S. C. Yin; 7, W. E. Gallie; 8, Miss M. J. Hoyles, J. G. W. Hunt; 10, G. A. Winters; 11, W. A. Graham, S. Singer; 13, F. C. Neal; 14, J. L. Biggar; 15, P. F. Quinlan; 16, E. V. Frederick, W. B. S. Hunt, G. S. Wray; 19, C. E. Knister, R. P. McLaughlin, H. McLean; 22, A. McInnis; 23, A. T. Bond, M. H. Langs; 25, N. D. Buchanan; 26, T. W.

Walker; 27, T. H. McColl, G. F. Lamb; 29, G. W. Ross; 30, D. S. Johnstone, W. E. Somers; 32, T. D. White, J. H. Hamilton.

Degree of Bachelor of Medicine, with honors—1, J. A. Oille; 2, G. E. Wilson; 3, J. Phillips; 4, F. C. Neal; 5, W. E. Gallie; 6, W. A. Graham; 7, J. L. Biggar; 8, J. D. Leeson; 9, N. D. Buchanan; 10, C. E. Knister.

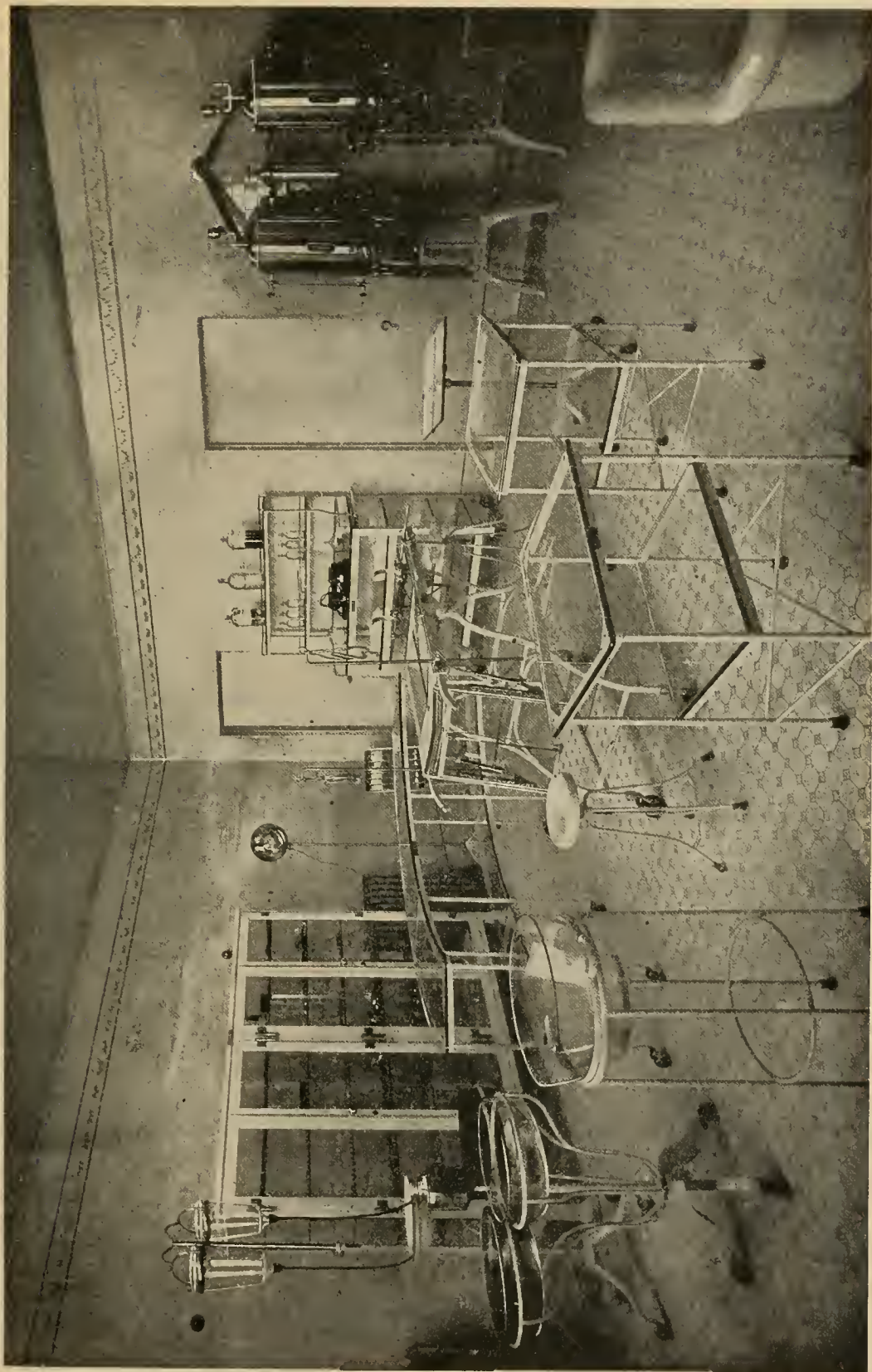
First Year.—Honors—1, J. H. Holbrook; 2, R. J. McMillan; 3, A. T. Ripley; 4, D. M. Kilgour; 5, C. A. M. Thrush; 6, N. D. Frawley, F. Manning; 8, A. S. Moorhead; 9, G. H. Gardiner; 10, W. H. Reid; 11, J. W. Counter, F. H. Mayhood; 13, R. H. Ruby; 14, C. W. Hurlbert, J. H. Storry.

Second Year.—1, R. H. Bonnycastle; 2, Miss M. McAlpine; 3, W. S. Lemon; 4, S. R. Dalrymple, G. Ford; 6, A. G. McPhedran; 7, C. C. Schlichter; 8, M. E. Gowland; 9, G. I. Black; 10, Miss M. E. Reid, W. Roberts; 12, C. E. Spence; 13, A. Sinclair.

WING IN GRACE HOSPITAL OPENED BY GOVERNOR-GENERAL.

HIS Excellency the Governor-General opened, on the 1st of June, the Pellatt wing for surgery in Grace Hospital, and unveiled a portrait of Lieut.-Col. Pellatt in the reception room, and Lady Minto presented the graduating class of nurses with their diplomas. The new operating room is asserted to be the most modern and best equipped in Canada. The ward comprises a dressing-room for the surgeons, then a wash-room. This opens into the operating-room, the floor and walls of which are tiled, and every arrangement is made for the most thorough cleansing and disinfecting. The equipment, tables, instruments, etc., are of the most improved character, manufactured by The Chandler-Massey Co., Limited, of Toronto, and the lighting and ventilation could not be improved upon. Off the operating-room is a sterilizing chamber and another room, where anesthetics are administered, and opening off the latter is a recovery room, with a cot, where the patient is laid after an operation.

The hospital entrance was draped for the occasion with two large Union Jacks. Among those present were: Edward Gurney, Chairman of the Board; Lieut.-Col. Pellatt, Mrs. Pellatt, Mrs. Wm. Christie, Lieut.-Col. Bruce, Lady Kirkpatrick, Mrs. J. B. Hall, F. Roper, Mrs. Geo. A. Cox, Mrs. F. G. Cox, Mrs. J. M. L. Forster, Mr. and Mrs. E. R. Wood, Mr. and Mrs. R. Tackaberry, Provost Macklem, Mrs. Arthur Massey, Drs. G. P. Sylvester, W. A. Young, E. H. Adams, H. B. Anderson, J. N. Anderson, C. J. Copp, J. M. Cotton, W. J. Emory, L. H. Evans, F. Fenton, W. F. Britton, J. T. Clark, E. J. Barrick, J. C. Patton, E. H. Hooper, J. B. Hall, E. A. P. Hardy, W. H. Harris, A. O. Hastings, C. J.



NEW OPERATING THEATRE, GRACE HOSPITAL, TORONTO.

Hastings, W. J. Malloch, J. H. McConnell, D. W. McPherson, W. Nattress, L. L. Palmer, B. L. Riordan, G. A. Clendenan, H. Hunt, C. J. Currie, Mr. E. J. and Miss Towner, Mr. and Mrs. Niellar.

The company viewed the new ward with much interest, and then proceeded to the reception-room, where the oil painting of Lieut.-Col. Pellatt was unveiled. It is by Mr. J. W. L. Forster, and is an excellent likeness of the Colonel in the uniform of commander of the Queen's Own Rifles. Mr. Gurney briefly welcomed the distinguished guests, and His Excellency in reply expressed their pleasure in participating in a function of that nature. Lady Minto then presented diplomas to the following graduating nurses: Misses E. Cornell, L. Baird, I. Robinson, A. Chant, O. B. Hutchinson, E. Worden, M. A. O'Byrne, M. Selater, H. Macpherson.

BANQUET OF TORONTO UNIVERSITY ALUMNI SOCIETY.

PRESIDENT LOUDON, of Toronto University, presided at the banquet of the Alumni Society, held in the gymnasium, on June 12th. Among those who surrounded him at the head of the table were: The Lieutenant-Governor, Chancellor Meredith, Hon. J. M. Gibson, Hon. R. Harcourt, Dr. Gilman, Dr. Hoskin, Dr. Reeve, Chancellor Burwash, Dr. Goldwin Smith, Dr. C. D. Massey, Mr. Irving H. Cameron, Prof. Ramsey Wright, Principal Sheraton, Mayor Urquhart, J. Herbert Mason, Principal Hutton, J. H. Nairn, J. H. Coyne (St. Thomas), Principal Galbraith, Principal Embree, Rev. J. A. Macdonald and T. Arnold Haultain.

The hall was handsomely decorated and covers were laid for 300 guests. The first toast, of course, was that to His Majesty the King, who is an undergraduate of the college. The toast was enthusiastically received.

Dr. Reeve, dean of the medical faculty, proposed the toast of "Alma Mater," a toast, he said, which aroused many emotions, many reminiscences, in the mind of every graduate. He dwelt on the great progress of Toronto University, comparing her to a mighty oak, which from the tender seedling had planted its roots deep into the soil, and spread its branches to all parts of the country, and was now a strong, vigorous tree, destined to be a landmark for centuries yet to come. He spoke of the financial clouds of the past, now so happily cleared away, and commented favorably on the intense loyalty of the alumni for their beneficent mother.

In replying to this toast, the Lieutenant-Governor grew reminiscent, and spoke of the University in 1859, when there was no medical faculty, no law faculty, and the growth of these powerful branches of the University had been for him a most interesting and delightful study. His Honor emphasized the axiom that the success of a university depended on the *esprit de corps* of its

alumni, and he said he had no doubt of the future of Toronto. There could be no reason for pessimism.

Hon. J. M. Gibson, who also replied, said that he had been a student in the King's year. He warned the University against looking to the Government for everything. There must still be effort by the friends of the institution, but if that effort fell short the Government would stand ready to prevent disintegration from financial embarrassment. Nor did the Government desire to claim any political credit in the matter. It was simply a case of reasonable and proper administration in regard to which there was no divergence whatsoever between the parties in the Legislature.

The speaker concluded by saying that any Government in Ontario, if properly approached from the front, not by a flank movement, would consider most favorably the University's needs.

Hon. Richard Harcourt said that the Government was convinced that only one university should be State-assisted. In this they were supported by the Opposition, and hereafter that question would not come up again. It would be a plank in the platform of whatever party might be in power. A generous response might be expected whenever any reasonable demands were made. The Act of the Legislature in setting aside a part of the public domain for the benefit of the women's residence was commented upon, and the intimation made that when the friends of the men's residence had done all they could to provide this so great necessity there would be a way found for completing the work.

When Dr. Goldwin Smith rose to speak in reply to the toast, "Our Guest," the diners rose *en masse* and cheered him and Mrs. Smith most heartily. They have been generous to the University, and made up the last \$5,000 for Convocation Hall. The doctor, after expressing his thanks, spoke of the growth of University federation. Now the consummation was at hand, and Toronto University could hold its head high among the great educational institutions of the world.

He had been sorry to see the residence abolished, but he hoped for another in the future, as something was needed to cultivate the social side of university life. That something was supplied in Oxford and Cambridge by the colleges, and in the American colleges by the Greek Letter Societies, which he believed did more good than harm.

BREFNEY ROLPH O'REILLY, M.D., C.M.

(Gold Medallist in Medicine, Trinity University, 1913.)

At the recent final examinations in medicine at Trinity University, Toronto, for the degree of M.D., C.M., Mr. B. R. O'Reilly obtained the highest honor conferred in medicine, winning the gold medal and a certificate of honor. He also passed the final

examination for Trinity Medical College Fellowship Degree, taking first-class marks and certificate of honor; in his second year he obtained two certificates of honor, and in his third year obtained the highest marks in the class. Dr. O'Reilly was educated at Upper Canada College, from which institution he



BREFNEY ROLPH O'REILLY, M.D., C.M.
Gold Medallist in Medicine, Trinity University, 1903.

matriculated before entering Trinity Medical School in 1899. During his course at Upper Canada, Dr. O'Reilly took prizes in natural science, history and geography; and in athletics in 1890 won the silver cup (first prize) in the twelve-year-old class for "hundred-yard race."

We congratulate Dr. Charles O'Reilly (Toronto General Hospital) on the high standing his son has taken in the profession, which seems almost hereditary in the O'Reilly family.

Dr. B. R. O'Reilly's grandfather, Dr. Gerald O'Reilly, practised in Hamilton from 1834-1861, and when a student was a room-mate of the late Sir Charles Lever, M.D., for many years in Dr. Stevens' Hospital, Dublin. His uncles are Dr. Gerald O'Reilly, of Guelph, and Dr. E. B. O'Reilly, Hamilton. His great-uncle, Dr. John O'Reilly, F.R.C.S.I., was a prominent surgeon in New York, and contributed largely to medical literature in his day. One of his great-great-uncles was surgeon-in-ordinary to George IV., and resided in Windsor Castle. On his mother's side the Rolphs have had many notable representatives in the medical profession, both in Canada and in England. His great-great-grandfather, Dr. Thomas Rolph, of Thornbury, England, became a member of the "Corporation of Surgeons," England, 1790, and practised at Vittoria, County Norfolk, in the old Long Point District of Upper Canada. Before settling in Canada, he practised near Dr. Edward Jenner, the discoverer of vaccination, with whom he was very intimate. His eldest son, the late Hon. Dr. John Rolph, was a distinguished and well-known practitioner and politician in Canada, and was also a member of the "Inner Temple," London (1821), practised both medicine and law in Dundas for many years, and was the founder and dean of "Rolph's Medical School" in Toronto.

Dr. O'Reilly occupies a very unique position, having been born within the precincts of the General Hospital, where he has lived continuously during his minority, and is, perhaps, the only man in the profession who has enjoyed the great privilege of residing so close to his practical work from his youth to the end of his medical course, which has just been completed with such honor to himself and credit to his teachers and his *Alma Mater*.

UNIVERSITY FEDERATION.

MORE than once within the past three or four years the federation of Trinity with Toronto University has been announced as practically an accomplished fact, but each announcement has been premature. Though time and again negotiations to that end when apparently on the eve of consummation have failed, the men who have had disinterestedly at heart the interests of higher education in Ontario have not been discouraged; they have continued to work steadily, and now again the successful conclusion of their labors appears to be only a question of a few weeks. This time the federation includes the faculties of art and medicine.

Last year the negotiations for the amalgamation of the medical faculties of Toronto University and Trinity College came to nothing, because the Trinity men thought the amalgamated faculty, as proposed by the Toronto representatives, was not fair and equitable. Negotiations were then undertaken for a closer union between Trinity University and Trinity Medical College, with the result that an arrangement was come to by which the medical college was to become the medical faculty of Trinity University, and the University was to raise \$250,000, with the principal portion of which a new building, with the finest modern equipment, was to be built for the purpose of the medical faculty in the vicinity of the General Hospital. Of the quarter of a million asked \$160,000 was raised, and on the strength of that an agreement was entered into between the faculty of Trinity Medical College and Trinity University, under which a certain time was allowed for the completion or abandonment of negotiations looking to the federation of the universities, in those negotiations the University to act, with some reservations, for the medical college. If federation was finally abandoned the University was to build for the medical faculty a new building, at a cost of \$100,000.

The erection of such a building, it was seen, would be a great obstacle in the way of federation. The knowledge of that, the increasing strength of Trinity, but still more the increased sentiment in favor of federation, led to the reopening of negotiations by the University of Toronto a short time ago. The matter was left to a Committee, composed of Mr. Byron E. Walker, Dr. John Hoskin, President London, Provost Macklem, Dr. J. A. Worrell, Dean Reeve, Mr. I. H. Cameron, Dr. Sheard and Dr. J. A. Temple, now dean of Trinity Medical College. The draft of an amalgamated faculty of medicine was prepared, and was submitted to and approved by the Trinity medical faculty two weeks ago. It was submitted to the medical faculty of Toronto University a few days later, and though not officially announced as yet, we understand has been accepted. Members of both medical faculties are considered deserving of praise for the readiness with which they were prepared to make considerable personal sacrifice to further the cause of medical education in Ontario, as they will lose considerable by amalgamation. Ex-Dean Geikie, at the outset of the present negotiations, declared himself opposed to them, and sent in his resignation, which was accepted with regret.

CANADIAN MEDICAL ASSOCIATION.

AS ALREADY announced through the columns of this Journal, the thirty-sixth annual meeting of the Canadian Medical Association will take place at London, Ont., on the 25th, 26th, 27th and 28th

of August, with Dr. Walter H. Moorhouse, of that city, as President. Dr. George A. Hodge, Queen's Avenue, is Chairman of the Programme Committee, and Dr. Hadley Williams is Local Secretary, to whom or to the General Secretary, Dr. George Elliott, 129 John Street, Toronto, titles of papers may be sent. Arrangements for reduced fares on the regular Standard Convention Certificate plan have already been arranged for with the Grand Trunk and Canadian Pacific, while negotiations are in progress with the Intercolonial and Canadian Pacific officials west of Fort William. These arrangements will be published in full in due time. In addition to those who have consented to read the addresses, the following have signified so far their intention of being present and contributing papers: A. M. Rosebrugh, Toronto; Perry G. Goldsmith, Belleville, Ont.; T. Shaw Webster, Toronto; R. Ferguson, London; A. Laphorn Smith, Montreal; Henry Howitt, Guelph; Alexander McPhedran, Toronto; E. G. Wood, Nashville, Tenn.; C. W. Wilson, Montreal; George H. Aylesworth, Collingwood; Jennie G. Drennan, St. Thomas. This list is every day being added to, and the Programme Committee is desirous that those contemplating should send in their titles without further delay. Entertainment is in the hands of a strong committee, and London is quite sure to do itself proud in this direction. It is understood that Western Ontario is going to turn out very strong to the support of London, and there is every probability that the largest attendance ever recorded will be equalled if not eclipsed. A great many members in the western peninsula who have not attended the annual meetings for years will take advantage of the proximity of this meeting to renew old acquaintances. The meetings will take place in the Normal School Buildings, which are said to be the finest of their kind in Ontario.

LADY MINTO VISITS THE WESTERN HOSPITAL.

THEIR Excellencies Lord and Lady Minto, accompanied by Major Maude, paid a visit to the Western Hospital on the morning of June 2nd at 11 o'clock. At the entering in, Dr. A. A. Macdonald, the dean of the staff, presented to the vice-regal guests his confreres, and other guests assembled. Lady Minto met the Ladies' Board of Managers, consisting of Mesdames Todd, Baxter, and Dr. Stowe-Gullen, at the office, and was the recipient of a handsome bouquet of pink roses tied with a pink ribbon of silk. Passing on further into the institution, the several floors presented the appearance of vast hanging gardens, decorated with flowers and pennant.

Under the direction of Miss Fletcher the first floor had assumed the beauty of an Oriental court. Palms stretched out before the

eyes, palms rounded the niches of the room, and the table was embowered with palms and surmounted with the Union Jack. Placed here and there among the festoonery of green was Canadian mistletoe and the star-like embroidery of maple leaves. Flags were draped over the archways, and the grand entrance was en fete with the ruddy emblem. The same scene of taste and beauty was repeated on the second floor. The honored guests inspected all departments, and expressed unbounded admiration of all.

On the lawn comfortable tents caught the observance of the Lord and Lady, and especially delighted was her Excellency at the bracing air inhaled on the verandah of the hospital. The visit over the strains of "God Save the King" sounded and resounded throughout the spacious apartments, and their Excellencies departed, taking a last glance of the institution that had so well met their ideals of what a hospital should be.

TRINITY MEDICAL EXAMINATIONS.

THE results of the final examinations at Trinity University for the degree of M.D.C.M. are announced. The winner of the gold medal is Brefney O'Reilly, son of Dr. Charles O'Reilly, of the General Hospital. The silver medal goes to Mr. E. C. Beer. The other results follows:

Certificates of honor—H. E. Eagleston, B. F. Cowler, W. T. Gemmell, M. J. Perkins, A. A. Thompson.

Class I.—G. E. Chapman and C. H. Hair equal, G. P. Campbell, A. W. Canfield, B. H. Hamilton, J. M. Baldwin, T. J. C. Tindle, R. A. M. Cook and C. C. Cragg equal.

Class II.—J. H. Kidd, J. P. Cade, R. S. Conboy, R. E. Loucks, E. V. Smith, W. C. Arnold, F. R. Fursey, A. H. Campbell, W. W. Milburn, W. E. Mason, C. E. Duggan, D. Munro, A. C. C. Johnston, L. S. Pritchard, R. A. Fraser, C. B. Stone, J. A. Anderson, W. A. Lawrence, H. W. Coulter, G. F. R. Richardson, E. C. Dixon, F. W. Hill, B. D. Munro, A. H. Cook, F. J. Dodd.

Class III.—Miss E. F. Lucas, C. R. Learn, J. W. Rowntree, H. F. W. Vernon, P. W. Tuller, E. T. Curran, A. W. Hicks, Miss O. M. Rea, W. E. Ekins, Miss M. G. Bryson, Miss L. M. Patterson.

Conditioned—In pathology and therapeutics, J. A. Allen; in therapeutics, F. M. Crosby, G. O. Ireland; in midwifery, gynecology and pathology, W. E. McLean; in applied anatomy, A. E. Whitmore.

ITEMS OF INTEREST.

Polk's Medical Register.—The eighth revised edition of this well-known work is now under way, and will appear in due time. Send for descriptive circulars, and do not be deceived by imitators. Polk's Medical Register and Directory has been established sixteen years. R. L. Polk & Co., Publishers, Detroit, Mich.

University of Toronto Alumni Dinner.—The events of Convocation week at the University of Toronto were brought to a close on June 12th, in a very pleasant manner by the banquet to the alumni. Graduates from all parts of the Province were present, and these, together with the members of the graduating classes, renewed old acquaintances, and joined in singing the college songs.

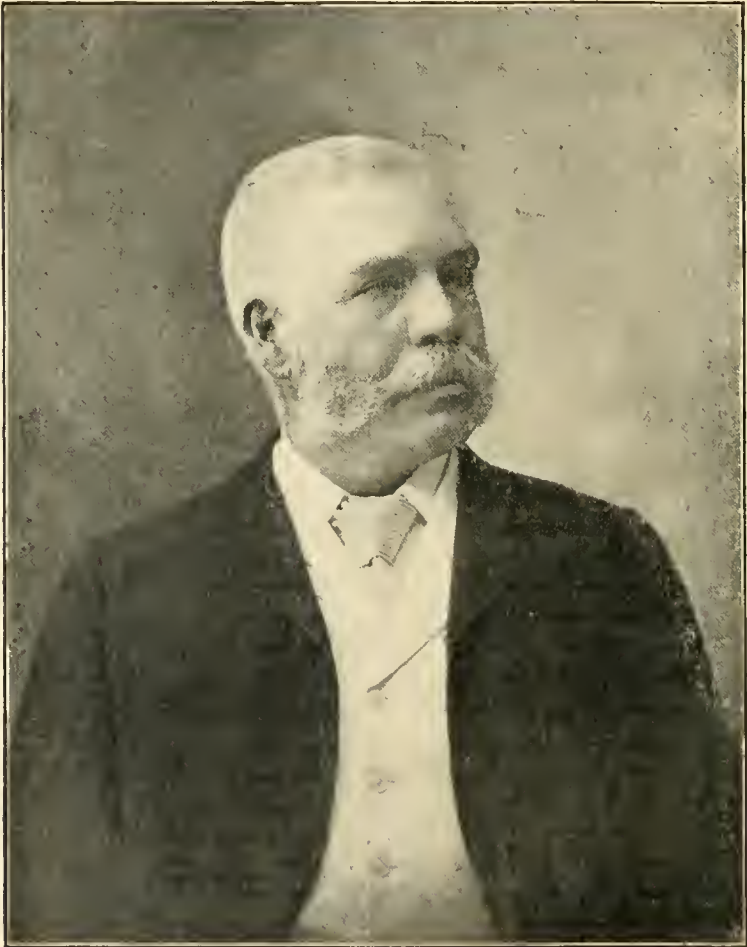
Queen's Jubilee.—Queen's medical faculty have finally decided to celebrate the jubilee of the college's foundation next October, at the same time as the principal's installation takes place. Some of the medical professors had proposed holding the event next spring, as the fifty years will not have elapsed till then, but it was thought better to have it take place at the beginning, rather than at the close of the session.

Sale of Narcotics.—A resolution calling upon the Ontario College of Pharmacy to take action in petitioning the Government to pass an Act placing the sale of narcotics on the same basis as that of spirituous liquors, was passed at a meeting of Districts Nos. 3 and 4 of the Graduates of Pharmacy, held at the college on the 11th ult. This resulted from a discussion on the alleged growing abuse of these drugs. It was asserted that in the State of New York over 500,000 people were victims to the "dope" habit.

Toronto Western Hospital Garden Party.—The Women's Auxiliary Board of the Toronto Western Hospital gave a garden party on June 20th, on the hospital grounds, 381 Bathurst Street, from 3 to 11 p.m. The 48th Highlanders' Band was in attendance during the evening. Refreshments were served. The funds will be used in aid of the new pavilion to be erected this summer, and for which the plans are now completed. The new addition will be forty by one hundred feet, three floors, and contain accommodation for seventy-five patients.

Medical Men Dine.—The medical class of 1903, University of Toronto, held their graduating dinner at the King Edward Hotel on May 23rd, Mr. E. A. Gray, B.A., presiding. Covers were set for ninety. The guest of honor was Dr. Adam Wright, Professor of Obstetrics, who spoke in kindly and well-wishing terms to the new-fledged doctors. Speeches were also made by O. T. Dinick, Eugene De Haitre, B.A., and S. C. Yea, B.A., and James L. Biggar sang. Many of the men said good-bye to each other after a fellowship of four years.

A Chief Coroner for Toronto.—A bill has been passed by the Ontario Legislature, at the session recently closed, providing a chief coroner for the City of Toronto. Dr. A. J. Johnson received the appointment, and we congratulate him upon this recognition of his abilities as a medical jurist. The salary is to be



DR. ARTHUR JUKES JOHNSON,
Recently appointed Chief Coroner for the City of Toronto.

\$1,500 per year, one-half to be paid by the Government, and the balance by the city. The object of the bill is that all inquests shall hereafter go through one office, that of the chief coroner, who shall either hold the inquests himself, or apportion them to whoever he may see fit, making an equal division of the inquests among those who have been most active in the work.

Dr. Kennedy's Success.—John Alexander Kennedy, M.D.C.M., a graduate of Trinity Medical College, son of Daniel A. Kennedy, of 286 Carlton Street, has the unique honor of being the first Canadian to be appointed a Justice of the Peace in Zululand. Mr. Daniel Kennedy has received from his son the parchment of Sir H. F. McCallum, Governor of Natal, making the appointment. Dr. Kennedy is twenty-eight years of age and has been in Africa three years. He served as civil surgeon with distinction during the recent war, and is now medical officer in the Mweta Mounted Rifles.

Banquet of Trinity Medical Graduates.—The class of '03 had their final gathering at the Arlington Hotel on May 29th. Covers were laid for sixty-five, and at 8.30 o'clock the dinner commenced, with Dr. M. J. Perkins presiding. The following members of the faculty were present: Dean Geikie, Dr. Teskey, Dr. Temple, Dr. Sheard and Dr. Bingham. After the toasts to the King, country and college had been replied to Dr. Teskey and Dr. Bingham delivered special addresses to the graduates. Then followed speeches from the representatives of the other years: Mr. S. H. Hillis, fourth year; Mr. G. F. Milne, third year; Mr. E. G. Hodgson, second year, and all the members of the graduating class of '03.

The Ontario Medical Library.—Up till now, the profession of Toronto and elsewhere have subscribed about \$3,200 towards the purchase of a new home for the Ontario Medical Library. This amount there is every prospect of being increased to at least \$5,000, which, if added to a similar sum which has been guaranteed by Chester Massey, Esq., of Toronto, whose generosity is so well known, will place the Ontario Medical Library in a home of which it stands in need, and will indeed be proud. It is to be earnestly hoped that the scheme will be accomplished without any further delay, so that the building, wherever it may be, will be all ready for use by October 1st next, where the different societies will meet regularly, thereby giving new life to scientific medicine in Toronto.

Women Doctors Dined.—The annual banquet of the Alumnae Association of the Ontario Medical College for Women was held in the college, 291 Sumach Street, on Thursday evening, May 28th. This is a function now well established, and has as its object the welcoming of all recent graduates into the profession. This year there were five women graduates. Most of these were present, along with the majority of women practitioners in Toronto. The interest of the gathering was greatly augmented by the presence of Dr. Eliza R. Gray, of Owen Sound, and Dr. Jennie Hill, Mitchell, who recently returned from China. Favorable reports and messages of a congratulatory nature were received from members

of the society practising in several of the States of the Union, and in foreign countries.

Addition to Mimico Asylum.—The Provincial Secretary purchased for the Ontario Government on May 16th by public auction, held pursuant to the direction of the Master-in-Ordinary of the Supreme Court of Judicature, the McNeil farm of seventy-three acres, lying west of the Mimico Asylum property, for the sum of \$7,100. The reserve bid fixed by the court was \$7,000. This seventy-three acres will be added to the Mimico Asylum property for additional farming purposes, and will be of much advantage to the institution, furnishing employment for a number of patients whom it is desirable to keep employed, and at the same time providing a larger area of farm land upon which to raise supplies for the institution. The farm and grounds now comprise two hundred and ninety-one acres.

Convocation at McGill.—At the convocation of the McGill medical faculty on June 12th, Dr. Roddick, in the course of his remarks, emphasized the need for assistance to the medical faculty to make it able to compete with other colleges. He referred to the rumored amalgamation of the faculties of medicine of Toronto and Trinity Universities, and said that singly they were very powerful competitors, but if they joined forces their strength would be increased four-fold. Regarding the measure for medical registration, Dr. Roddick said that with a majority of the Provinces now in line, he thought it would not be unreasonable to ask the Dominion Government to grant permission to bring in an amendment to the original Act allowing those Provinces which wish Dominion registration to begin the work. He had reason to believe that this permission would be granted.

Lord and Lady Minto at Muskoka.—His Excellency the Governor-General and Lady Minto, after breakfasting in their private car with their party on June 4th at Gravenhurst, proceeded by the steamer *Medora*, which was placed at their disposal for the day, across to the Cottage Sanatorium for Consumptives, and to the sister institution, the Free Consumptive Hospital, which is a mile drive from the former. Their Excellencies have both for many years been warm and active supporters of the efforts being made to stem the spread of the white plague in Canada, and were most interested in the inspection. They were received at the former place by Dr. J. H. Elliott, physician in charge, and Dr. J. A. C. Grant, Mayor of Gravenhurst, who is also a trustee of the institution, and by Dr. H. S. Hutcheson and Dr. C. D. Parfitt, at the Free Hospital, and accompanied throughout the inspection by Mr. Aemilius Jarvis, of Toronto. About noon they embarked again on the steamer and took a trip up the lakes, and returned to Gravenhurst in the evening to catch the train for Peterboro'.

Fraudulent Substitutes for Phenacetin.—Phenacetin made by the Farbenfabriken of Elberfeld is protected by patent, and druggists selling an article what is said to be phenacetin, but which does not bear the private mark of the company, are liable to be prosecuted. Last autumn anxiety to make a dollar without earning it induced certain druggists in the Southern States to give orders to a travelling salesman, who represented that he was able to supply phenacetin at lower rates through a Detroit wholesale house. To protect their patent the Farbenfabriken of Elberfeld Company instituted suits against the offenders. Certainly if the efforts made by this company to enforce its patent rights contribute to the placing of purer drugs on the shelves of the druggists, the company is entitled to the thanks of the profession and the public, even if the suits which it is prosecuting are only for its own pecuniary benefit.

A Provision for Better Sanitary Conditions in the City of Toronto.—In the Legal Committee of the Legislature on June 4th, Dr. R. A. Pyne's bill to amend the Public Health Act was cut in half. The first clause was promptly rejected; the second clause passed. The first half of the bill provides that the Local Health Board may direct that the carcasses of all animals, and that meat, poultry, game, flesh, fish, fruit and vegetables shall be brought to fixed places for inspection by a health officer, and shall not be sold until so inspected. Mr. Stratton objected that such a provision would be impossible to carry out, and the Committee agreed with him. The second half of the bill aims at securing better sanitary conditions in the Chinese and Italian quarters of the city. It provides that a medical health officer may enter lodging-houses, etc., wherever crowded or filthy and compel better sanitary accommodation. At least 400 cubic feet of air must be provided for each occupant in a sleeping room, and the rooms must be kept "in a condition fit for proper human habitation."

DIET IN DISEASE.

"Good diet with wisdom best comforteth men."

—*Tusser*, 1520.

THE cardinal principles of feeding the sick involve, first, the avoidance of all articles that disagree with the condition present, and, second, the giving of food best adapted to relieve the digestive organs of unnecessary labor and to maintain nutrition. In addition, for certain special diseases there are classes of foods which have distinctly curative values—for example, the use of fresh fruits and vegetables in scurvy, fats and oils in scrofula and tuberculosis. Although

there is no curative food for fevers, it should be remembered that there is nothing so easily assimilated as water, and advantage must be taken of this fact to introduce other foods into the body with it, giving them, therefore, in fluid form. The former treatment of fevers by starvation and depletion, on the theory that the poison of the disease was soonest conquered by withholding all food and drink on which it might thrive, and starving out "a devouring flame of inflammation" has long been superseded by more scientific methods. It is now known that in fevers, by supplying the patient with abundant nitrogenous food, the tissues of the body are spared from consumption—in other words that the proteid matter of the food is burned up or oxidised instead of the proteid matter of the patient's muscles and other structures.

Fever patients commonly excrete much more nitrogen than they take in as foods. In doing so, it is believed that they first exhaust whatever reserve supply may be on hand in the food proteids previously absorbed and circulating in the blood, and subsequently draw upon the tissues, just as is the case in starvation. In chronic fevers with remissions, like tuberculosis, there is less rapid waste than in the continuous forms, such as typhoid.

Dr. W. Gilman Thompson lays down the following conditions as those to be met in the dietetic treatment of fever:

1. To save tissue waste by supplying sufficient nourishment.
2. To give semi-solid or fluid nourishment in a form which will not overtax the enfeebled digestive apparatus or leave a large residue for decomposition.
3. To give abundant fluid with the object of relieving thirst and to wash out through the kidneys the waste matter produced by the increased rate of metabolism.

4. In some cases to give alcohol as a food as well as a stimulant.

In all fevers presenting periods of remission it is desirable to give the greater part of the food while the temperature is lowest, so that it will be better digested and absorbed, for at this time the tissues appear to temporarily recover their assimilative power to some extent. In mild cases, with remissions, if the appetite holds out, it may do no harm to allow some little variety in the diet; but if the fever is brief and the appetite fails, it is unnecessary to force the patient to take food.

As a rule, in fevers which are protracted or severe, nourishment should be given in fluid form. To offer solid food in serious fevers is practically to place foreign bodies in the alimentary canal, which merely ferment and putrify, causing discomfort, with flatus, fetor and diarrhea. There are some exceptions to this, notably the fever of phthisis, some forms of protracted sepsis and ague.

Milk being the first and natural food of man, it would seem most appropriate that it should constitute the staple article of diet in fevers in which the digestive powers are temporarily greatly en-

feebled or wholly suspended. The danger from its continuous and exclusive use arises from its coagulating in lumpy masses, which act practically as solid food; but the many means which are at the disposal of the physician and nurse make it possible to overcome this difficulty almost completely, and by processes of artificial digestion milk may be given ready for absorption, so that nutrition is rendered quite independent of stomach and intestinal digestion. In a large majority of cases, therefore, milk is altogether the best food. The natural nerve food, as supplied by nature in mother's milk, is Lactalbumin, the soluble proteid of whey. This can be procured in three forms, Nos. 1, 2 and 3. The Lactalbumins are not to be confused with other products, which, though soluble proteids, are prepared by rendering casein soluble by treatment with chemicals. Lactalbumin No. 1 contains 99 per cent. proteid matter, but has not a trace of casein or sugar of milk, and is specially suitable in the treatment of phthisis, typhoid, diabetes, diseases of the nervous system, in fact for all cases where extreme wasting is taking place. As the patient recovers ground, a mixture of Nos. 1 and 2 may be given, No. 2 containing 50 per cent. Lactalbumin and 50 per cent. caseinogen. No. 2 can be used with great benefit where the patient is not in a very serious condition, such as the first stages of tuberculosis. Lactalbumin No. 3 is exactly the proportion of proteids in mother's milk, and makes an ideal form of diet in anemic conditions, and especially for rachitic infants. The Lactalbumins are nothing but soluble whey proteids, having a definite value as a food for the nerve centres, thus enabling the various organs to act for themselves. That they have a most important medical value also is shown by the fact that in a patient fed with only eight ounces per week of Lactalbumin, together with ordinary diet, the increase of weight per week is out of all proportion to the amount of Lactalbumin given, being ordinarily six or ten times as much.

For infant feeding, the Lactalbumins constitute a food of undoubted value.

They are not only pure, but free from ferment, and can be given to the youngest infant, containing (as they do) the exact constituents of mother's milk, less the sugar, which may be added in quantity according to age or direction of physician; or on the other hand, the infant may be fed this, the nursing mother partaking of the food, where her own milk supply is defective or deficient or her health below par.

The value of the Lactalbumins in the treatment of disease is shown in the following two cases, recently under notice:

A. G., aged 23, was seized with a chill about 8 p.m., May 2nd, 1903. He had a severe epistaxis on three occasions during the preceding four or five days, and a great deal of frontal headache for two weeks before. When seen the temperature was 100.2,

and the pulse about 88. His tongue was furred in a typical manner, and already a certain degree of tenderness showed itself in the right hypochondriac region. He was put to bed and soon developed typhoid fever. The course of the fever was practically normal, with the exception that the rise of temperature at night was not as emphatic as usual. From the very first, difficulty presented itself in the fact that he was unable to take milk, it having been, as he described it, always his pet aversion. He was therefore put upon Lactalbumin No. 1, in two or three teaspoonfuls at a time every two hours. It agreed with him well, and constituted his entire form of diet, or nearly so, for about four weeks. The diarrhea, which, for a short time was profuse and accompanied with abdominal distension, became less and less severe, with little of the frequent distress from borborygmus.

As the temperature came down he was put upon a mixture of Lactalbumins Nos. 1 and 2. Towards the commencement of the sixth week he took No. 2 altogether, when he was also allowed, besides calf's foot jelly and champagne, at frequent intervals, beef broths and such like. He rose on the forty-fifth day and is now "better than ever." This case, therefore, goes to show that there need not now be any trouble with patients who claim they are unable to take milk diet, as they can be, as Prof. Wm. Osler put it, fed upon whey, "or better still, in its concentrated form of pure Lactalbumin."

R. T., a few weeks ago, became anxious about a slightly irritating cough he had had, especially as he had an uncle who had died some years ago from pulmonary tuberculosis. Examination of his chest showed a slight hollowing under the right clavicle with prolonged expiration over the apex of the lung on that side. Microscopical examination of the sputum at first showed no bacilli at all, though later they were found fairly abundant. As soon as the diagnosis was established, he was put upon Lactalbumin No. 2 in doses of one or two teaspoonfuls every three hours, as it is now a well-recognized fact that in phthisis the clear indications are that the digestive organs are in such condition that they cannot carry out their chemical functions to any great extent, owing to the fact that the nerve centres are all deranged. This form of food, which was practically all he took, proved ample for all his bodily needs, and by the end of the first month he had put on seven pounds in weight (stripped). In the form of medicine, he took capsules of morrhua creasote, three times a day, and made a special point of taking a judicious amount of daily exercise, sleeping in a tent every night. At the present writing, this man is progressing, the cough is but slight, and, not only is his weight increasing, but the bacilli found in the microscopic field are becoming less and less, so that it is hoped that by the advent of the cold weather, when he goes south, he will be practically well.

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THE TREATMENT OF CHRONIC EMPYEMA.*

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THE treatment of chronic empyema is a subject of sufficient importance to bring before this Association. The remarks I have to make on the subject are based upon my own experience, and chiefly upon thirty cases the records of whose clinical history I have preserved. Fifty per cent. of these cases were under ten years of age. It would appear that an empyema is more common on the left side than on the right. Of twenty-six of my cases I find that sixteen were on the left side, nine were on the right, and one was a case of double empyema. In other published statistics this appears to hold true. Statistics, too, would go to show that empyema of the left side is more fatal than of the right. Of my fatal cases 33 per cent. were on the right side, and 67 per cent. on the left. This has been ascribed by some authors to the proximity and intimate relations of the heart to the left pleura, as compared with the conditions obtaining on the right side. I may make the further observation and state that of my cases of empyema, which developed a chronic course, 86 per cent. were on the left side, and 14 per cent. on the right, apparently suggesting the greater likelihood of an empyema developing a chronic course when it exists on the left side.

The object of my paper is to deal with the treatment of these cases of chronic empyema. Occasionally an empyema will persist and run a chronic course, remaining unopened for a long period. This, I believe, is possible in certain cases of pure pneumococcus infection. Thus a child five

*Read before the Ontario Medical Association, June, 1903.

years of age was admitted under my care in the Children's Hospital in August, 1901. The history was that of chest trouble two years before, from which he recovered; then six months before admission he began to suffer from shortness of breath, and his general health failed; when he presented himself in my consulting-room before admission to hospital, I found his right pleural cavity completely filled with fluid. After resection the bacteriologist reported that he could not get any culture to grow, but in the pus he found some misshapen pneumococci which he believed to be dead. The pus was, therefore, sterile at the time of operation. In the majority of instances, however, when an empyema of pure pneumococcal infection is properly treated the case runs a favorable course and progresses rapidly to a cure. Even under most adverse conditions, if efficient precautions are taken to avoid mixed infection, one may secure a speedy convalescence, as indicated in such a case as the following:

J. M., aged 23. Was operated upon, December 22nd, 1901. He had been extremely ill with pneumonia, and it was thought could not recover. A week previous to operation I had opened an abscess in the right arm. Aspiration was performed immediately below the angle of the scapula on the right side, and pus was found on directing the point of the needle inwards towards the spine. Here Dr. J. D. Thorburn had diagnosed a localized empyema. The ninth rib was resected for $1\frac{1}{2}$ inches, and a drainage tube placed in position. The cavity was markedly localized, and was apparently chiefly in the space bounded by the mediastinal pleura. The bacteriologist found a pure culture of the pneumococcus. The discharge rapidly diminished, and the tube was removed on the fourteenth day, and the wound healed. The man is now living in California, and is in excellent health. He was heard from recently as pitching in a baseball team.

Undoubtedly, the most of our cases which run a chronic course are those where mixed infection has occurred, or where the empyema to start with has been due to some infection other than the pneumococcus. Mixed infection may occur at the time of operation, and, therefore, our technique must be most carefully carried out in order to prevent, if possible, such an untoward event when we proceed to resect for empyema. It is worthy of note here that an empyema may burrow and point beneath the skin, and still remain of pure pneumococcal character. The following illustrates such a condition:

O. S., aged 7. Admitted January 15th, 1903. Above and internal to the right nipple was a fluctuating swelling about two inches in diameter. Apex beat was in the sixth interspace four inches from the middle line. I resected the sixth rib below and external to the right nipple. The swelling in the anterior aspect of the chest now disappeared on pressure, and subsequently on

manipulation became emphysematous. The culture showed a pure pneumococcus. Free drainage was maintained. Within a month the wound was quite healed and the child went home cured.

With mixed infection, however, you sooner or later have to deal with sinuses discharging on the surface, or opening into the lung, or with communications in both directions. Such are the conditions which obtain, provided the patient survives, and the empyema becomes "chronic." Something must be done if we are to save life, and the condition is a desperate one. Let me remind you of the fact that the loss of a drainage tube in the empyema cavity is a possibility which we must by no means lose sight of, and my experience teaches that one should always hunt an empyema cavity for such a foreign body when called upon to operate for a persistent sinus. The first time I was impressed with the importance of this was a good many years ago when I, as house surgeon, assisted Mr. Pierce Gould to operate on an old empyema, and on exploring with his finger he drew out no less than ten inches of drainage tube from the pleural cavity, twisted and much altered in appearance as the result of its long sojourn in the pus cavity. I also had a similar experience in one of my cases, which was as follows:

G. M., aged 2. Operated on, November 13th, 1894. History of pus having been aspirated ten days before, and now a re-accumulation, I excised $1\frac{1}{2}$ inches of the sixth rib in the mid-axillary line, and removed a large amount of stinking pus. The cavity was somewhat slow in closing, but eventually the child was discharged apparently cured. Twelve months subsequently he contracted pneumonia, and empyema recurred. The mother would not consent to his coming to hospital, and accordingly the physician in attendance opened the chest in the region of the old cicatrix, and the wound was attended to by a district nurse. A sinus persisted, however, and would not close, and he was readmitted under my care in the Children's Hospital. I excised about $1\frac{1}{2}$ inches of the fifth, sixth and seventh ribs, and then proceeded to explore the cavity. I found to my surprise three inches of drainage tube lying free in the chest cavity. Evidently this had been lost during the drainage of the cavity, and had not been missed. It undoubtedly was responsible now for keeping up the discharge. The child made a rapid recovery and has remained well.

The clinical picture of the typical case of chronic empyema with all the sequelæ of long-continued suppuration is too familiar for me to dwell upon. As I have already stated the condition is desperate, and demands desperate measures. Schede, of Hamburg, has taught us what, I believe, holds out the only hope of recovery in many of these cases. Where the lung has retracted and there is no hope of expansion, and nature has met the case as far as possible by flattening of the chest and elevation of the diaphragm, and yet the cavity remains patent, then Schede proposes the

operation of "thorax resection," by which he means removal of the unyielding part of the outer wall of the cavity so that it may collapse and meet the pulmonary surface, and thus bring about obliteration of the cavity. It is an operation of the utmost severity, with a very high mortality, but one should not hesitate to undertake it when the case is otherwise hopeless. Neither of the two cases which I record made a permanent recovery, but the course they ran has convinced me that in certain cases permanent recovery is possible. In the presence of tubercular phthisis, however, when that is known to exist beyond doubt I think it is useless to undertake the operation. My cases were as follows:

M. L., aged 23, female, was admitted into hospital in January, 1891. She had had typhoid fever six months previously. This was followed by pneumonia, and then empyema developed. The chest was aspirated twice, and she apparently got well and left hospital, but eighteen months afterwards she was readmitted, when an incision was made behind the left shoulder blade, and the chest drained. As the cavity did not drain freely, resection of the rib was performed after the lapse of a month. She improved after this and left the hospital, but in May, 1896, she was admitted to the Toronto General Hospital with a discharging sinus, and was there once more operated upon; she remained in hospital nine months and then went out with, however, the sinus persisting. She applied for admission to St. Michael's Hospital in September, 1897. She was in a miserable condition, ill-nourished and emaciated, the sinus draining badly and the discharge fetid. An extensive operation was suggested as the only prospect of relief, but the fact that the right lung presented evidence of trouble (probably tuberculous) at the apex made one hesitate before undertaking such a serious operation on the left side. The patient was anxious to be afforded the small chance which operation held out, and accordingly on November 30th, 1898, I removed a large portion of the chest wall, including the thickened pleura. After dissecting off the superficial soft-parts I used a large bone forceps, curved and provided with a spring so that I was able rapidly and easily to remove the ribs and pleura in one piece over an area corresponding to the outer wall of the empyema cavity. The wound was packed with iodoform gauze.

The patient rallied well after the operation, but the trouble at the apex of the right lung made rapid progress; she became extremely emaciated, and she died thirty-two days subsequently.

The second case referred to had the following history:

E. M., aged 30. Admitted September 14th, 1896. She had two sinus openings in the left chest, and some cicatricial tissue between, indicating where previous operations of resection had been performed. She had suffered for a prolonged period from con-

tinued suppuration, and she was in an ill-nourished, emaciated condition. A vertical incision six inches long was made in the mid-axillary line and the cavity explored through the sinus openings. One judged that it was about the size of the clenched fist. The third rib appeared to be the uppermost limit of the cavity, and this was accordingly bared and $4\frac{1}{2}$ inches of it removed; then five inches of the fourth rib. The fifth, sixth and seventh ribs had been resected at a previous operation, and now $2\frac{1}{2}$ inches further were removed from each; then from the eighth rib three inches, and from the ninth two inches were removed. In all, some twenty-one inches of rib were removed. The patient's condition at this stage of the operation was so bad that excision of the thickened pleura could not be undertaken. Two large drainage tubes were placed in position, and the wound otherwise closed. The patient rallied well after the operation, but she died some months after of phthisis. The wound had not completely healed, but had contracted greatly, and there was little or no discharge.

Although neither of these cases resulted in a permanent cure, there can be no doubt but that they were subjected to a trial of the only procedure which held out any prospect of relief in an otherwise hopeless condition.

I believe a word of caution should be uttered here as one might be tempted too hastily to look upon a case as hopeless without having tried the simple device of establishing *absolutely free* drainage. A small opening will not suffice. The drainage tube or tubes must be of large size, and the drainage absolutely unobstructed. The best way to enforce my point is to narrate a case, and I think you will agree with me that at first sight a Schede operation seemed the only hope, and yet I cured my patient by drainage.

F. C., aged 23. Admitted October, 1893. Three years previously he had an attack of pneumonia of the left side, which was followed by empyema. The pus cavity was tapped six times, and on one of these occasions the cannula was left in for drainage. A sinus persisted subsequently which kept discharging pus. This sinus closed spontaneously in August, 1892, and remained closed for six months; it then opened up again and continued to discharge up to the time of operation. His condition before operation was indeed miserable. He had become extremely emaciated, and presented a most cadaverous appearance. He suffered from night sweats, and had a distressing cough. A large amount of pus came constantly from the sinus opening when he walked about or remained upright; but when he lay down the cough became troublesome, and he expectorated quantities of purulent material whilst the sinus, under these conditions of recumbency, discharged but little. The finger tips were clubbed to a remarkable degree; he suffered from edema of the feet, and he presented all the appear-

ance of a man in an advanced stage of pulmonary phthisis. Obviously the man suffered from an empyema of long standing, and a large communication existed with the lung or bronchus. The pus cavity was discharging in two directions; chiefly by the sinus on the surface of the chest when he stood upright, and chiefly into the lung and air passages when he lay down. Through a vertical incision some two inches of the sixth and seventh ribs were incised in the anterior axillary line. A free flow of pus resulted, and on exploring with the finger a very large cavity was found. The thickened parietal pleura (fully three-quarters of an inch thick), and the periosteum in the region of the resection were carefully cut away. The operation was by no means devoid of danger, as the recumbent position, plus the insensibility produced by the chloroform, permitted the pus to accumulate in the air passages, and the patient became almost asphyxiated. The cavity was washed out with 1 in 20,000 bichloride of mercury, and a vulcanite tracheotomy tube secured in position for drainage. The patient made a remarkable recovery after the operation. He gained rapidly in weight so that as a matter of actual observation he gained twenty-one pounds in twenty-one days. In March, 1894, five months after operation, he entered the Street Railway employ as a motor-man, and continued at that occupation in apparently excellent health for some months. I saw him at his work towards the end of June, 1894, and he was then strong and well, but shortly after this he was unfortunate enough to contract pneumonia on the right side of the chest, and to this he rapidly succumbed. Dr. Fotheringham, who was present at the *post-mortem*, informed me that the left pleural cavity where the empyema had existed had become completely obliterated.

The point is also illustrated by the following case where a chronic course threatened, but was prevented by the establishment of efficient drainage:

G. S., aged 3½. Operation was performed, June 29th, 1894. The child had been ill two months before admission. One month previously a surgeon had incised below and to the left of the left nipple, and inserted a drainage tube. The tube came out after a few days, and the drainage was not efficiently maintained. On admission a fistulous opening was discharging a scanty amount of foul-smelling pus. I resected 1½ inches of the fifth rib, and a large quantity of stinking pus escaped. The cavity was flushed with sterilized water, and a vulcanite tracheotomy tube placed in position for drainage. The child made a rapid recovery.

Robert McGuire in a "Discussion on the Treatment of Pleuritic Effusion in Childhood," at the British Medical Association, in 1899, expressed the view that pneumothorax with or without effusion may well be left alone if its tension be not very high. "Pus," he adds, "in the body is bad, but in the condition to which

I refer, I think the operation for its removal is worse." We think the statement is too general. Pyo-pneumo-thorax is the worse complication we can meet with here. Some of these cases, however, do recover, and recover, too, without operation. Occasionally we see a man dying who may possibly be saved by operation. I refer to those cases where there is a free communication with the lung or bronchus, and where abundant, foul-smelling, purulent material finds its way into the air passages, and is expectorated. When with these conditions you find your patient steadily losing ground, surely the rational line of treatment is to resect a portion of one or two ribs, and establish free drainage. The following case comes under that category, and further illustrates the interesting complication of hemiplegia and aphasia with empyema:

L. C., aged 24, a news-carrier. Admitted under Dr. Dwyer's care in St. Michael's Hospital on February 7th, 1903, with empyema affecting the left side. He had consulted a doctor seven years previously for pleurisy; his mother had died of consumption. When he came to hospital his temperature was normal; respirations 28, and pulse 78; he was then a thin poorly-nourished man; he had a slightly cyanosed color and distressed facies. The left chest presented the physical signs of a large collection of fluid in the pleural cavity, with the cardiac dullness displaced to the right nipple line. On aspirating in the sixth interspace thirty ounces of pus were withdrawn. In addition to the empyema this patient presented the unusual condition which in rare instances has been found associated with empyema, namely hemiplegia with aphasia. The right side was partially paralyzed; there was marked weakness in the right arm and leg; complete paralysis at the wrist, and very slight movement possible of the fingers; the tongue was protruded to the right side, and the right side of the face was smoother than the left; he spoke slowly and with difficulty. The condition of hemiplegia and aphasia varied very much during the four months since his admission to the hospital, but the symptoms still persist. This condition has been ascribed to softening, brought about by embolism of the middle cerebral artery. It is suggested that in consequence of displacement of the heart and the resulting interference with circulation a thrombus has formed in the heart or pulmonary veins, and from this the embolus has had its origin.* Another explanation advanced is metastatic encephalitis, which has not gone on to suppuration.

The dislodgment of a portion of a thrombus may result from the disturbance of parts which must necessarily accompany the sudden removal of a large quantity of fluid, and it has been suggested that hemiplegia occurring after paracentesis has thus been accounted for. Two days after aspiration, examination of the chest showed signs of extensive pneumothorax on the affected side; the metallic tinkle,

* Samuel Gee, "Pleurisy," "Clifford Allbutt's System of Medicine," vol. 5, p. 364.

tympany and loss of resistance with suppression of breath sounds indicated the diagnosis. The fluid did not reaccumulate rapidly at first, but two weeks after aspiration there existed a considerable quantity in the cavity. The total number of aspirations previous to my operation are indicated in the subjoined table:

February 7th (on admission)	30 ounces
“ 25th	50 “
March 15th	80 “
“ 25th	70 “
April 9th	35 “
“ 11th	50 “
“ 18th	12 “

The patient had a most irritating spasmodic cough with a small amount of expectoration suspiciously like that removed in aspiration. Just previous to the last aspiration the amount of purulent expectoration had greatly increased and was very foul-smelling; moreover the pus at the last time of withdrawal was so thick that it would not flow freely through the needle, and the cavity was not completely emptied. There was now some elevation of temperature, rising as high as 103 deg. F. at night, but he had had no chill nor sweating. On April 25th (seventy-seven days after admission) I resected 1½ inches of the eighth rib in the posterior axillary line, and removed a large quantity of pus; this possessed the foulest stench it is possible to imagine, and contained much flaky material. I placed two large drainage tubes in position, and applied a dressing.

Since the operation, seven weeks have elapsed, and the patient has made marked progress. He has put on flesh, and his general condition has in every way improved. There is still some hemiplegia and difficulty in talking, but there appears to be a certain amount of mitigation of these symptoms; certainly the aphasia is not so pronounced.

Obviously in this case free drainage has already accomplished much. The operation would have been performed earlier, but the general condition of the patient was such that it was not thought wise to attempt it; moreover, the long intervals at first existing between the periods of aspiration, with slow reaccumulation of fluid, gave rise to the hope that something might be accomplished by aspiration alone.

Dr. Dwyer has under his care at present a patient with pyopneumo-thorax, running a favorable course after simple aspiration. The history is as follows:

B. E. W., aged 20. Admitted to St. Michael's Hospital under Dr. Dwyer's care during the latter part of May, 1903. She has been in poor health since last autumn when she had pneumonia of the left side. She presented the local signs of fluid in the left pleural cavity, and on aspirating a large quantity was drawn off.

Three weeks after aspiration there had been very little reaccumulation. There is, however, the characteristic metallic tinkle obtained in pyo-pneumo-thorax.

It is interesting to observe that an abscess may cross the pleural cavity and rupture into the lung or bronchus, giving rise to copious expectoration of fetid pus, without invading the pleural cavity generally. The following is the history of a patient who suffered from a subphrenic abscess which ran the course indicated:

G., aged 20. Admitted July 30th, 1899, with a history of having become ill twelve days previously. He had always been strong and healthy. He now suffered severe pain in the abdomen, and appendicitis was suspected. Forty-eight hours after admission he was seen by Dr. McPhedran, who diagnosed pus in the right lumbar region, and advised operation; immediately previous to this he had had a severe chill, and his temperature rose to 106. Shortly after Dr. McPhedran's visit, and two hours before operation, he was seized with an irritative, distressing and incessant cough, and brought up from time to time small quantities of stinking pus. There was no dulness over either lung, and other local signs caused one to conclude that a subphrenic abscess had ruptured into the lung. Under chloroform the cough ceased, but the cyanosis became extreme. An opening was rapidly made anteriorly below the ribs on the right side, and a pus cavity at once reached. The abscess lay above the liver, that organ being depressed downwards. I passed my fingers back in the cavity and opened the loin for a counter opening, and inserted drainage tubes. The cough returned slightly after operation, but soon disappeared. For the first few hours after operation he improved, but sixteen hours after operation he became suddenly worse and died. Unfortunately we were unable to obtain a *post-mortem* examination.

The following case illustrates a condition of pyo-pneumo-thorax communicating with an abscess pointing on the anterior surface of the chest. As this was only one manifestation of a general pyemia, operation offered little hope of success.

Mr. M., aged 56. Admitted March 13th, 1901, said to be suffering from pyemia. Five months previously he was treated for bronchitis, and shortly after his physician told him the left lung was consolidated. On admission he had an abscess in the calf of the left leg, suppurative keratitis of the right eye, and an abscess on the right shoulder. He also had a circumscribed swelling over the cartilages of the third and fourth ribs. This presented some emphysematous crackling on manipulation, and the patient was able to make it more prominent when he attempted a forced expiration with the mouth and nostrils closed. Dr. McPhedran, who saw the patient with me, agreed that there was a localized empyema cavity, which communicated on the one hand

with the lung, and on the other with the swelling on the anterior chest wall. The superficial abscess was opened and packed with gauze. A more extensive operation was in contemplation to open up the cavity within the chest, when the patient died suddenly and unexpectedly. A *post-mortem* examination was not permitted, but obviously he suffered from a pyo-pneumo-thorax, the abscess pointing on the surface of the chest.

Kurpjuweit has recently recommended a method still more extensive than Schede's in the treatment of chronic empyema. In addition to excision of the costal pleura he suggests and practises decortication of the lung; stripping off the pulmonary pleura from its surface, and subsequently suturing the deoudded lung to the chest wall in the region of the resection.*

In concluding my paper let me emphasize the importance of my contention, borne out, I think, by the cases which I have recorded, namely, that cases of chronic empyema should be operated on with a view of establishing the most efficient drainage possible. I do not believe that much is to be gained by irrigation, and there is apparently some danger in the procedure. Many cases will be carried to a successful issue if free drainage is maintained. Finally, let me urge the advice that whenever pus is discovered in the pleural cavity it should be got rid of by free drainage at an early stage of the trouble, and if this is accomplished much of the misery which is experienced as the result of the disease becoming chronic will be prevented. In this connection, G. F. Still's statistics are worth study. He finds that in twenty-eight consecutive cases of death from empyema ten had shown suppurative pericarditis; five, suppurative peritonitis, and one suppurating joints.† In all these cases the empyema appeared to be the primary infection. Arguing from the analogy we have in other infective processes which tend to become more generalized throughout the system, and from the results we know obtain in such cases, after removal of the primary focus of infection, we conclude that the rational treatment of an empyema at its inception, as well as in its chronic stage, is to establish free drainage. Where free drainage has had a fair trial in chronic empyema, and a cure is not thereby effected, Schede's operation of thorax resection should be undertaken if the general condition of the patient warrants it.

100 College Street.

* *Centralblatt für Chirurgie*, 1902, p. 301: "Über die Decortication der Lunge bei chronischem Empyem."

† *British Medical Journal*, 1899, vol. 2, p. 455.

A CASE OF TUBERCULAR LARYNGEAL STENOSIS TREATED BY TRACHEOTOMY.*

BY J. PRICE-BROWN, M.D., TORONTO.

LARYNGEAL tuberculosis as a sequence to pulmonary tuberculosis is of such common occurrence that I would not have taken the liberty to present the report of a case to the Fellows of this Society but for its unusual history and the remarkable condition of the patient at the present time.

On April 2nd, 1901, Mr. T. D., piano-builder, aged 30, was referred to me by Dr. Thomas Kerr, of Toronto. He had been under treatment for two or three years for dry cough, and for several months his throat had been sore, resulting in odynphagia and dysphagia. There was also dyspnea on lying down, and constant partial aphonia. For some time he had been subject to night-sweats. Appetite was gone. Pulse, on examination, was 120; respiration, 24; temperature, 99 3-5; weight, 117 pounds. There was frequent, almost noiseless cough, racking the body, but attended by little solid expectoration. There was chest soreness, but no pain. Whether it was due to the lack of solidity in the sputum or not, microscopical examination of a specimen at the time failed to reveal the presence of tubercle bacilli. There was no family history of tuberculosis, neither was there personal history of syphilis.

Examination.—Nose normal; pharynx catarrhal and hyperemic; larynx infiltrated, particularly left side of epiglottis, rendering examination of vocal cords difficult. There was ulceration along the margin of left vocal cord and slight abrasion of left arytenoid and ary-epiglottic fold. The whole larynx was bathed in mucus. No rales in chest, but bronchial breathing, particularly on left side, with prolonged expiratory murmur. Dulness on percussion over left upper lobe anteriorly. Vocal exaggeration so far as could be discerned from imperfect condition of voice.

As the larynx presented the most prominent symptoms, the treatment was mainly directed toward the relief of that organ. This consisted of the daily use of an alkaline spray, followed by one of menthol in alboline 5 per cent.; and also every third or fourth day, in the application by cotton holder of 50 per cent. solution of lactic acid. Following laryngeal treatment each day in the office, the patient took inhalations, first, of hot air, and second, of mentholated air. Internally compound syrup of hypophosphites was given; also during the summer, cod liver oil, iron and creosote.

* Read before the American Laryngological, Rhinological and Otological Society, at the annual meeting in Lexington, Kentucky, May 1st, 1903.

Of course this part of the treatment varied from week to week according to circumstances.

By May 12th the patient had improved considerably. The voice was still aphonic, but the infiltration had abated somewhat; the larynx was cleaner, and the ulceration on the cords looked healthier. Swallowing was easier; night-sweats had ceased, and respiration was freer. Appetite had improved and the temperature never rose above 99 1-5. Weight had increased to 123 pounds.

On May 13th he had a chill, followed by rise of temperature to 103 3-5 deg. In a couple of days this abated, and symptoms were favorable again.

By June 5th the condition had improved so much that I sent him to Dr. Powell, examining officer for the Gravenhurst Sanatorium, with the hope that he would be admitted into that institution for the summer months. The doctor wrote me in reply that the sanatorium was open only for cases in the first stages of tuberculosis; and that as a consequence my patient was ineligible. He found considerable deposit in the right apex, extensive consolidation in the left apex, and down the posterior side of left lung as far as the seventh rib. The condition of the larynx and bad heart also combined to make the case altogether too hopeless to be admitted.

Failing to get in, the patient, on my advice, secured a tent, and put it up in his back garden. Here he tented for a month. Then he went to Muskoka, took the tent with him, and occupied it from that time on until November. In the latter month it was very cold, and having no stove with him, he each night carried a heated brick from a neighboring house to warm his bed before retiring. The following morning he would sometimes find water frozen an inch thick in his tent when he rose to dress. Notwithstanding this, his health improved; and on returning to the city I advised him to put his tent up again in his back-yard, place a little stove in it, and live there all winter, which he did.

During that winter he came occasionally to the office for treatment. All I did for him was to repeat the menthol spray to the throat and order a continuance of the tonic treatment.

By May, 1902, or eleven months after he was refused admission into the sanatorium, although still voiceless, he had so far improved, that on examining him again, Dr. Powell advised that he be admitted. His weight was then 130 pounds. At this time tubercle bacilli were found in the sputum.

Mr. T. D. remained at the sanatorium until November last, a period of six months, when he returned to my office with a letter from the house physician, Dr. Elliott, stating that the patient had passed an excellent summer; still further increasing in weight; that his lungs had materially improved; that the expectoration had

become less, and that very few bacilli could be found in the sputum. He had a chest expansion of over three inches. During the last three weeks, however, infiltration in the larynx had increased, and stenosis was becoming very severe. He closed by stating that relief from impending suffocation was urgently required.

On examination I found the patient's hands cold, his skin cyanotic, and his breathing labored and stertorous. These symptoms were said to be much worse at night-time.

On using the laryngoscope I found the epiglottis right down to the tip enormously infiltrated, particularly on the left side. It was tilted backwards hiding completely the arytenoids and vocal cords from view.

It seemed to me that the only possible relief that could be given would be by tracheotomy, and that this measure was justifiable, in view of the fact that the lungs presented so few urgent symptoms. I was well aware that some authorities, particularly the late Lennox Brown, disapproved of opening the trachea even in the worst cases, and it was with some trepidation that I ventured to operate. The hope was, as there was little expectoration from the lungs, that the cough would subside; and that the larynx, being freed from the irritation of breathing, would be benefited by the complete rest which tracheal respiration would insure. Hence on November 10th, 1902, I did tracheotomy, Dr. McDonagh kindly assisting, with Dr. Kerr as anesthetist.

There are several points in connection with the operation that I would like to mention. Although a high tracheotomy, it was an unusually difficult one, owing to the low position of the larynx, and the fact that the lower end of it and the trachea seemed to tip backwards deeply into the neck. The first point will be noticed in the accompanying photograph.

The after-effect was that the fenestrum in the silver tube used came directly below the cricoid instead of into the trachea; and whether from pressure upon the open edge of the tube, or the presence of tubercular disease in the cartilage, part of it sloughed away, leaving a notch in the lower side of the anterior margin of the ring.

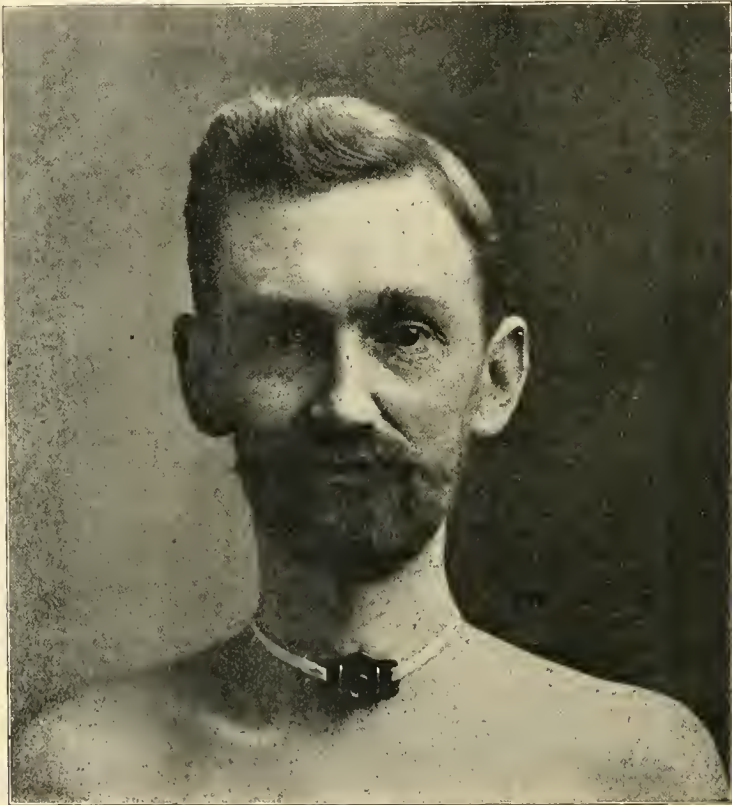
When I discovered the sloughing, I tried different rubber tubes; but the fenestrum even when farthest removed from the external end, always seemed to do harm. Consequently, I finally discarded the fenestrated tubes altogether; and the one he has worn now for two months or more has no opening in its upper side.

From the time of the operation the laryngeal symptoms slowly improved. Still, the temperature occasionally rose to 100 degrees, and several times he had night-sweats; though I think these drawbacks arose mainly from the difficulty in procuring a thoroughly satisfactory tube.

Other treatment was practically nil—the objects being to give

the larynx perfect rest, and to build up the system by an abundance of nutrient food. His room was well ventilated and there was evaporation of moisture from a pan of hot water. This, however, was so slight that I do not believe it affected the case materially. The only throat treatment was an occasional spray of five per cent. menthol in alboline.

For some time he continued to run down in flesh, and it was not until he got thoroughly adjusted to the new condition of things that this ceased. He then weighed 125 pounds.



Taken in May, 1903. Weight 140 lbs., before starting for Muskoka.

From that time onward, although winter, he went regularly out of doors; fever abated and practically disappeared; expectoration through the tube and throat became less, and he steadily gained in weight.

Present Condition.—He still wears the tube. If taken out, the stenosis is too great to admit of reasonable respiration. When he closes the tracheal opening with his finger he can speak in an intelligible guttural tone. For many weeks his temperature has at no time been above the normal. He sleeps and eats well, and

has no difficulty whatever in swallowing. His weight is 140 pounds, as heavy as he ever was in his life. Recent microscopical examination of the discharges through the external opening and from the throat, being the accumulations of over twenty-four hours, were negative. No tubercle bacilli could be found. The patient manages the tubes himself without any difficulty, and takes one or both out for cleaning purposes whenever required.

The infiltration of the epiglottis has very much diminished; but the left side which was so enormously infiltrated, has shrunk to less than normal size. The whole organ is shortened in length. At the same time it has contracted horizontally backwards and downwards, so that it still completely hides the vocal cords from view. There are no visible ulcerations, neither is there any appearance whatever of cicatrix. The muco-purulent secretions around the larynx have almost disappeared.

The patient has again taken his tent up north to Muskoka and purposes spending the summer there. When he returns, my present intention is to attempt the removal of the laryngeal stenosis by the use of graduated intubation tubes.

Perhaps one or two other results of observation, in treating this case, are worthy of notice.

First, the facility with which oleaginous sprays enter the larynx. When treating the patient at my office, I have frequently taken out the entire tube, cleaned and dried the opening into the trachea, and then with compressed air and the down tip, sprayed the larynx with mentholated alboline, instructing him to inhale at the time. While in the act of spraying, the oil would trickle out of the opening and down the neck. This would invariably be the case if the spray was at all profuse.

Second, although we all admit that the moisture of the nose is requisite to prepare the air for respiration, yet this man, suffering from combined pulmonary and laryngeal tuberculosis, has for nearly six months breathed practically dry air into his trachea, not only with impunity, but with actual benefit to his tubercular condition. Not only that, but although I have had the tube out dozens of times and examined the parts carefully, I never found the trachea or even the passage to it in a dry or irritable condition.

Third, while in a case like the one I have had the honor of reporting, tracheotomy is the best, and, perhaps, the only means of affording relief, yet in the majority of cases of laryngeal tuberculosis, it would be too hazardous to be worthy of trial. When cough does occur it is very convulsive, ineffectual, and distressing to the patient; and I can readily believe, from watching the course of this case, that in severe pulmonary disease, attended by copious discharges, the distress produced by coughing and expectoration would be only aggravated by the presence of a tracheal tube, and in such instances, tracheotomy would be worse than useless.

THE X-RAY IN SARCOMA, WITH CASE.*

BY CHARLES R. DICKSON, M.D., TORONTO,

Electro-therapist to Toronto General Hospital, Hospital for Sick Children, and St. Michael's Hospital.

THE case to which I desire to draw your attention quite briefly presents many interesting features and affords much food for reflection. The diagnosis is still an unsettled question, although I have called it sarcoma in common with some of my confreres.

J. D. P. M., suffering from typhoid fever, was admitted to St. Michael's Hospital, Toronto, on October 8th, 1901, under the care of Dr. H. B. Anderson.

On account of a case of smallpox unexpectedly developing in an adjacent ward, he was vaccinated on November 16th. About ten days later, boils appeared on different parts of his body, including his head, fifteen or sixteen at a time, and disappeared under treatment.

A lump then made its appearance on the right side of his chest; was treated and disappeared shortly after leaving the hospital on December 23rd, 1901, but on the last day of December, 1901, it returned. He re-entered the hospital, and at the request of Dr. Anderson, Dr. G. A. Bingham removed the tumor in February, 1902. On account of recurrence a second operation by Dr. Bingham was necessary two months later, in April, 1902. After a further interval of about two months the tumor again appeared. Several physicians were consulted, and a variety of opinions expressed, both diagnostic and therapeutic. Dr. Forbes Godfrey, of Mimico, suggested that the X-Ray be tried, and referred the patient to me for that purpose, stating that his previous history was good, nothing tubercular, nor specific (gonorrheal or syphilitic) could be discovered, that he had saturated the patient with iodide of potash without effect; and that his mother had died of cancer of the stomach. The patient is 47 years of age, married, and a commercial traveller.

On June 26th, 1902, the patient came to my office, erroneously ascribing all his trouble to the vaccination, an unfortunate habit with many of the laity. Cicatrization was complete. The tumor which was about four inches across, and not much elevated, extended from the lower border of the third rib at its junction with the costo-sternal cartilage, was firm in consistence, and very sensitive to the touch, the skin and underlying tissues being adherent to the ribs beneath.

The first raying was done on June 26th, 1902, with a medium hard tube at about eighteen inches distance for twenty-five minutes

* Read at meeting of the Ontario Medical Association, Toronto, June, 1903.

every second day for five times, when constitutional disturbances manifested themselves; elevation of temperature, loss of appetite, malaise and diarrhea. The tumor also became softer, and a mild erythema developed. Appropriate medication was resorted to, and the raying desisted from for ten days. Then, after three more rayings at similar intervals, the lower extremity of one of the cicatrices broke down and a "glucy" discharge occurred. After two further rayings Dr. Godfrey, on examining the tumor, reported that he considered it reduced 50 per cent. in size, *i.e.*, on July 24th, less than one month after inception of raying.

On July 30th and August 1st, on account of a moderate ray dermatitis, the static brush discharge was employed in lieu of the ray, but by the 6th, the dermatitis having disappeared, the ray was again used, and also six times again in July at longer intervals—three to five days—and for twenty minutes at a time, and this was the usual duration thereafter.

In September he was rayed seven times and erythema again becoming troublesome, the brush discharge alone was employed on the 29th, and again eight times in October, in which month the ray was used thrice only, and then with a very weak tube, for local use. There were two rayings on November 13th and 15th, then a long intermission to recuperate, as the tumor was discharging pretty freely.

On January 9th, 1903, he reported that the tumor again broke down on December 5th, and in four days there was a cavity "about the size of your fist," which in a week was much smaller, and on December 29th had filled up level with the surrounding tissues. He was able to go on the road again, and put in nine and a half days work for the first time in over a year. He used therminofuge, and latterly linseed over the discharging sinus. There is little discharge now.

He was rayed ten times in January, 1903, for twelve minutes each time, and the same thereafter, and directed to call for an occasional raying as a measure of safety. In March he was rayed twice, and twice again in May, a total of rayings of forty-three times.

While I do not consider the case absolutely cured, others do. I think that much has been accomplished, and that the prognosis is most favorable. In a letter received two days ago, he says he never felt better in his life.

Among features of interest in this case, I may mention the following: How plausible, and yet how unfortunate is his associating his vaccination with the appearance of the tumor, an erroneous conclusion often arrived at with far less occasion.

As to the nature of the tumor, Dr. Bingham tells me it was quite superficial and unattached to rib or cartilage; that the second tumor removed was larger than first.

Dr. Anderson could find no microscopic evidences of malignancy in specimens examined. The failure to respond to very free administration of iodide of potash would cast a doubt on the specific theory. What then was the nature of the tumor?

Another interesting feature, and one very frequently encountered when raying, was the early evidence of auto-infection, after one week of raying. Another was the fact that the cicatricial tissue gave way before the comparatively sound surrounding tissue; this also is a frequent occurrence in raying over cicatrices, and should be borne in mind. The attention of patients should also be directed to the possibilities of auto-infection, and forewarned thereof, lest they be needlessly alarmed when such symptoms appear.

Another feature of interest is that on account of the breaking down of the tissue being externally the character of the discharge could be observed, showing colloid degeneration. The discharge appeared after three weeks of raying.

Also of interest is the gradual and steady gain in weight in spite of all the patient went through. Dr. Godfrey, who has been a very interested observer, has kindly given me the following notes from his weight book: 1902, June 24th, 174 pounds; August 20th, 181 pounds; September 23rd, 183 pounds; November 9th, 184 pounds; December 14th, 185 pounds; 1903, January 8th, 190 pounds; May 20th, 192½ pounds.

A Medicine Slot Machine.—Automatic machines called “everybody’s doctor” are soon to be installed in the principal streets of Paris. By putting a penny in the slot, remedies may be obtained for sick headache, coryza, lumbago and toothache. Each machine will contain twelve slots, at the head of which is written the condition for which each remedy is indicated. This system has received a certificate from the Paris Medical Faculty. Naturally the plan is opposed by physicians.

Rheumatism Cured by Bee Stings.—The sting of a bee has long been regarded by the poorer agricultural classes of Europe as a cure of rheumatism. Dr. Pere, of Marburg, Germany, has recently been advocating its efficacy before a brilliant gathering of physicians, to whom he declared that he thoroughly tested the treatment and demonstrated its efficiency in 500 cases. If a bee stings a person suffering from rheumatism, the stung part does not swell, until the bee poison has been frequently introduced, when the rheumatic pain vanishes. Dr. Pere’s mode of procedure is to allow his patients to be stung at first by a few bees, gradually increasing the number. Dr. Pere asserts that by this treatment he has cured patients suffering from obstinate and most painful rheumatism.—*Med. Record.*

Surgical Pathology.

IN CHARGE OF . . .

THOMAS H. MANLEY, M.D.

STENOTIC OBSTRUCTION OF THE LARGE INTESTINE.

BY THOS. H. MANLEY, PH.D., M.D., NEW YORK,

Visiting Surgeon to Harlem Hospital; Professor of Surgery, New York School of Clinical Medicine.

TREATMENT: PALLIATIVE AND RADICAL.

WHILE we cannot fail to note the striking contrast in the etiology and pathology of stenosis in the large and the small intestine, yet in extreme cases of either its radical treatment is on similar lines. In the former, however, there is seldom imperative urgency, time is permitted to critically study the case and work out the best plan for operative procedure; while in the latter immediate and decisive action is necessary for the adoption of such a course as is best calculated to relieve suffering and prolong life.

Palliative, Tentative Measures.—Always mindful of the possibility of error in diagnosis, of the wonderful powers of nature to overcome simple stenosis of every variety, the latency, insidiousness and chronicity of various types of cancer of the large intestine, and, moreover, not closing our eyes to the large mortality following surgical intervention, we will do well, in a considerable number of these cases, especially in old people, or if doubt exist, to first patiently and perseveringly test the efficiency of such therapeutic measures as will in no manner jeopardize life and may possibly effect a cure.

Eight years ago a physician brought to me, for examination, his father, who had for some years back been suffering from tenesmus, with frequent sanguino-mucoid discharge from the rectum. The gentleman was a preacher of the gospel, of good physique and enjoying vigorous health, sixty-two years old, of good habits. About two inches from the anus I came on a hard, stony growth in the posterior and lateral walls of the rectum. There did not appear to be any sigmoid impaction. My prognosis, of course, was sombre, and early excision was advised. But the advice was declined, no operation has been done, and he, now in his seventieth year, still occupies his pulpit. I am entirely at a loss to understand how he has survived, though possibly my diagnosis of cancer

was an error. This case well bears out the view of Fitz as to the remarkable chronicity of pipe cancer in elderly people.

Inflammatory changes and spasm commonly attend the propagation of cancer of the bowel. Psychological impressions, as well as various sedative remedies, powerfully influence this phenomenon. Hence, however unfavorably a case may impress us, we should always endeavor to inspire confidence and hope. We may then turn to constitutional and local remedies.

Sedatives, local and constitutional, are of the greatest value, opium being well to the front. Packard notes the useful virtues of escerine one-fiftieth gr. doses. Belladonna, because of its relaxing effect on smooth muscle, is said to be highly efficient. Assa-fetida, in hysterical cases, blended with other sedatives is highly useful. Laxatives are usually ruled out, but small doses of opium and calomel may effect a large, free and painless motion when other medicaments have failed.

Quicksilver.—McKean Harris records two remarkable examples of success with the employment of quicksilver. One of his patients was sixty, the other eighty. In the first, high enemata and hot stupes had failed; the extent of abdominal distention was great. A half pound of quicksilver was given, this was followed every hour by a grain of opium. The next day the patient had a large evacuation with complete relief. The second case was a desperate one; the same treatment instituted with free and full evacuation on second day. In neither case did salivation follow. Harris recommends this weighty charge in those who refuse operation, or who are not in a physical condition to sustain it. Hot stupes, kneading the abdominal walls, massage, innunction of mercury or electrization are all, judiciously employed in appropriate cases, valuable adjuncts in treatment.

I have found that the well-oiled, warm hand, by deep but gentle kneading over the course of the colon, gives great relief. It stimulates the languid bowel to fresh contraction, subsequent ease succeeding from the escape of gases.

Rectal enemata and instrumental dilatation are most helpful means of relief in practically every variety of fecal stasis depending upon a contraction of the bowel. Their employment, however, must be governed by a judicious discrimination. Warm medication, oleaginous or saponated clysters are useful and afford great relief, quite regardless of the site of the stricture. They tend to overcome spasm; more or less of the fluid passes beyond the stricture or occlusive agent, in this way clearing the passage of scybalous plugs of feces, and thus permitting of a later escape of softened excrement and gases; with the discharge of the enema, large audible gusts of wind escape from the anus. The passage of the fecal elements tends to keep the lumen of a narrowed intes-

tine open. The injection of fluids not only cleanses the bowel, but also, in a measure, widens the strictured part.

We will do well here to employ the long, stiff, rectal tube with caution, lest we inflict serious harm. The following case illustrates this: A bartender was seized at midday with severe colic; being constipated, he took an injection, but without relief. When the physician was called he gave him a "high enema" with the long tube; but his alarm was great when he discovered that it only increased his patient's agony, and none of the fluid came down.

At ten the same night, I made an abdominal section. A large hole had been punctured through the free loop of the sigmoid, and the peritoneal cavity was widely distended by soap-suds, sweet oil and the feces. He sank before midnight.

Nor should we overlook the enormous energy of hydraulic pressure when we charge the colon by the piston, irrigating bag or other means.

A young carpenter came under my care at Harlem Hospital last spring, who, to simplify things and save trouble, fastened a rubber tube to a faucet in the bath-tub, lay down, passed the nozzle up his rectum, and let the water on. "All of a sudden," he said, "I felt something burst in my stomach." He quickly pulled the tube out, but too late; his agony was so great he was unable to leave the tub. He was immediately brought to the hospital in mortal shock, to die three hours later. On autopsy a large rent was discovered on the upper surface of the transverse colon, and the peritoneal cavity was found to contain fully two gallons of water with an admixture of feces.

Dilatation of any segment of the long intestine except the rectum, by bougies or sounds, is a reckless proceeding, and in cancerous infiltration it can be only productive of much harm or grave consequences; but in tubercular, syphilitic or gonorrheal stricture of the middle or lower third of the rectum it is often a very efficient agent, both for relief and sometimes cure, but we should not resort to it if the mucous membrane is either inflamed or ulcerated, and those which are not so complicated are very few indeed. Tierlink advises the rejection of rigid sounds here, "because their introduction is not without danger to the intestines."

I have seen mortal shock follow the forcible, vain effort of canalization of a scirrhus in a firmly strictured rectum.

OPERATIVE TREATMENT: ARTIFICIAL ANUS, RESECTION ANASTOMOSIS.

The basic principle of the operative treatment of stenosis of the large intestine, and for other tubular lesions, has undergone remarkable changes of late years; nevertheless in advanced cases when stercoremia exists, when the patient is starved to emaciation,

and when he is quite worn out by pain and loss of rest, and is in a settled despondency, all operative intervention has a harrowing mortality.

Artificial anus in former times was the only relief possible for all these unfortunate cases; it has and always will hold a position of prime importance as a last resort and a relief measure, but it leaves a loathsome condition. There is commonly a tendency to closure of the fistula or a prolapse of the intestine outward.

In malignant disease of the large bowel, or that type which restricts us to tapping the colon, the site of the artificial anus is determined by the location of the disease; if in the rectum or sigmoid, the descending colon is chosen; if in the ascending or transverse colon, the ascending segment; if the cecum or first part of the ascending colon, the gut is drained direct from the site of blockage.

Fortunately in a considerable proportion of cases of annular scirrhus of the colon, the disease is strictly limited to the wall and has not spread through the lymphatics to neighboring structures; at the point narrowed the gut looks as though reduced by a hard circular cicatrix, much like an artery ligatured in continuity, the mucosum, the cellular and muscular layers have been quite totally destroyed, and little more than a hard knot of cartilaginous consistence remains. But there are several other pathological conditions leading to intestinal stenosis which are not malignant. For some of these and annular scirrhus, resection and anastomosis have come to supplant the antiquated procedure of artificial anus; and, for many varieties of cancer not permitting of excision, we now resort to side-tracking, or exclusion by anastomosis.

Spontaneous Anastomosis.—By observing the unaided efforts of nature to relieve herself in this class of cases, we may gather a few very significant hints, and we may imitate her modes of effecting relief with the most signal benefit.

We find scattered through records on pathology, through revelations on autopsy, as well as illustrative instances on the living body, examples which point the way to effective relief in intestinal obstruction by an automatic mechanism, devices by which fecal blocking is overcome and the continuity of the bowel restored by adhesions and a free opening of one hollow viscus into another. The following are a few illustrative examples: Treves saw an instance of the jejunum opening into the transverse colon; Bland Sutton, another of what he terms "an accidental anastomosis"; Guyon, one of the ileum and the transverse colon; Boas, one of a similar character; Hausmann, two ileocecal anastomoses; Lacroze, four cases, fibrous bridges reinforced two. I have seen two instances myself in which the imprisoned feces of the colon by adhesions had established vicarious channels for escape—one

of stricture of the splenic end of the colon, the cardiac end of the stomach being opened; in the other, an old physician, the bladder was opened. Talma's case belonged to this class, as well as one from Dr. Reeve's group.

Anastomosis, transplantation or carrying the loop of gut from the afferent end of stenotic part to some point beyond, joining it with the free coil of the sigmoid, or rather bringing the divided ileum over and anastomosing it at once with the sigmoid, is the ideal procedure; it relieves all strain and gives a free outlet to the excretory elements by a route entirely under control. It is true that this procedure quite completely excludes any digestive action on the part of the large intestine and leaves the local lesion untouched. Theoretically viewed, we can conceive many objections to this mode of short-circuiting an over-distended crippled colon, but when we recall that it is utilized mostly in malignant disease as a substitute for artificial anus, it becomes a most acceptable substitute. Hennequin anastomosed the ileum with the sigmoid for inoperable cancer in a military officer. Immediate relief followed, with full recovery of health later.

Resection with anastomosis in stenosis of the colon has, of late years, become a well-established operation. Terrier has successfully removed the cecum, the ascending colon and the proximal half of the transverse colon for a cancerous growth, bringing up the ileum and anastomosing it with the remaining loop of the colon; the following day there was free movement *per anum*. The patient left the hospital on the thirty-seventh day after operation, having gained 4 kgr. In the medical literature of America and Europe, a large number of similar operations are recorded, and from year to year this number is growing, the ratio of successes steadily augmenting. One surgeon of large experience says that in the last quarter of a century the mortality in operations on the large intestine has been lowered from 50 to 20 per cent. Bennett, however, writing in 1887, denied that "up to that time resection of the bowel could boast of but few successes;" but since that date no single division of operative surgery has achieved more notable triumphs, though fifteen years ago it was little more than in its experimental stages. Tierlink observes that "surgery alone can deal with tumors or stenosis of the sigmoid."

Florence Nightingale in Her Old Age.—Florence Nightingale, whose eighty-third birthday occurred last month, is spending her old age in Hampshire, England. She received her education in Germany, and the Empress Friedrich subsequently became one of the most ardent supporters of her ideas regarding woman's work in war-time.

Selected Articles.

URETER-CATHETERISM: ITS PURPOSES AND PRACTICABILITY.*

BY BRANSFORD LEWIS, M.D., OF ST. LOUIS,

Professor of Genito-Urinary Surgery, Marion-Sims-Beaumont Medical College; Genito-Urinary Surgeon to Rebekah Hospital, City Hospital and Female Hospital.

THE purpose of ureter-catheterism in connection with the cystoscope are two-fold—for diagnosis and for treatment.

Diagnosis.—A. To locate the origin of pus, blood, tubercular products or bacilli, the various pyogenic infections, abnormally desquamated epithelium, etc., as to whether they come from (1) the bladder, (2) the right ureter, (3) the left ureter, (4) the right kidney, (5) the left kidney, (6) the right or (7) the left perirenal space, and communicating with the corresponding kidney or ureter.

B. To recognize and locate obstructive conditions in the right or left ureter from (1) stricture, (2) stone, (3) adjacent tumors, (4) bend or kink in the ureter from movable or dislocated kidney, (5) valvular junction of ureter and its pelvis.

C. To determine (1) the presence of two kidneys, (2) if only one, which is absent.

D. To determine the number of ureters present.

E. To determine the functional activity of each kidney separately and relatively, with respect to its excretion of urea, albumen, quantity of urine, the specific gravity, etc.

F. To determine the size and capacity of each kidney pelvis with respect to (1) hydronephrosis, (2) pyonephrosis, (3) total obliteration of kidney-secreting tissue.

G. If there be kidney disease present, to determine (1) if only one kidney is affected or both; (2) if only one, which is the affected one; (3) if both, which is the one more affected; (4) if removal of the worst one be advisable, is the other one able to carry on kidney function sufficiently? (5) if removal of one be advisable, and the other is capable of supporting life, will the operation remove the infection from the body, removing the possibility of dissemination or recontamination?

Treatment.—A. To enlarge narrowings or stricture at (1) the ureter openings or (2) in the channel of the ureters. By facilitating drainage through the increased ureter-caliber, thus ob-

* Read before the Mississippi Valley Medical Association, October 15th, 1902.

tained, to assist in the improvement of pyelitis, or pyonephrosis, unilateral or bilateral.

B. To irrigate and medicate (1) the ureters ; (2) the kidney pelves of one or both sides.

C. To assist, by anesthetizing and enlarging the ureter opening, the passage through it of a calculus or a plug of pus, blood, etc.

D. To use the ureter, after it is catheterized, as a guide in certain abdominal and pelvic operations.

E. By prolonged catheterization of a ureter to assist in the cure of ureteral fistula.

To give some indication of the practicability of ureteral catheterism, as well as its clinical advantages, I wish to refer briefly to some of the cases in which I have used it.

CASE 1.—*Supposed Ureteral Calculi; Erroneous X-Ray Diagnosis.*—G. E. P., male, aged thirty-five years, attorney, consulted me, on the advice of his brother, a practitioner of Chicago, in May, 1902. He said that he had recently experienced some return of symptoms that had been with him some three years ago, frequency of urination, etc., that were finally diagnosed as indicative of stone in the bladder, for which he was operated by the crushing method. This removed the stone but not the inflammation, and during the past three years he has had more or less of the irritative symptoms. I found no organic lesion present, and was giving mild, antiseptic treatment which was doing good, but on a trip to Chicago he was induced to have an X-Ray photograph taken of his abdomen, on the suspicion that it might be a return of the calculous deposit. What was his surprise and horror to be shown the shadows of three stones, evidently lodged in his left ureter, as the photographer explained to him. This was somewhat of a poser to me, when he recounted it to me on his return; nevertheless, as I had failed to notice any indications of the presence of urinary calculus at any point, I refused to be convinced without further evidence. While he thought it useless to make the test, since the stones could be plainly seen in the negative, he acceded to my suggestion of ureteral catheterism. Under cocaine anesthesia, with my instrument, in about five seconds after entering the bladder I passed a flexible catheter into the left ureter (the one supposed to contain the stones) on up as far as the renal pelvis; not a particle of obstruction nor of scratchy feeling was perceptible, and the urine drained from that side during the next ten minutes was as clear as crystal. There was an immediate and complete disproof of the accuracy of the X-Ray finding, and a large degree of relief to the troubled mind of the patient. I later had the satisfaction of an acknowledgment of similar import from the photographer, who thought it must have been "cherry stones," possibly lodged in the colon over the ureter.

CASE 2.—*Chronic Unilateral Pyelitis and Cystitis: Pelvic Irrigation.*—A. J. M., male, aged twenty-eight years, street-car conductor, referred by Dr. Y. H. Bond in November, 1901. Following on an incompletely cured attack of gonorrhea of two years previously, the patient had noted certain pains and dull aches in the bladder and perineal region that were growing and becoming a serious interference with the carrying on of his employment. I gave tonic treatment to his prostate, vesicles, and bladder, the organs which seemed to me to be at fault, attempting to eliminate a bacterial infection of colon bacilli with internal and local antiseptics, and giving periodic massages and hot rectal siphons. This was continued during November, December, and the following January with unsatisfactory results—only moderate improvement, at best. In February, 1902, more because of the rebelliousness of the condition than anything else, I suggested ureteral catheterism, in order to learn if the infection reached higher than the bladder. On February 25, at my office, under cocaine anesthesia, I catheterized the right ureter and drained good, clear urine therefrom. On March 26 I again catheterized the same (right) ureter with the same result—clear, healthy urine. On April 14 I catheterized the left ureter, and obtained definitely cloudy urine, containing pus and actively motile colon bacilli. Before withdrawing the ureter-catheter, but after removal of the cystoscope, I washed out the kidney pelvis with hot 2 per cent. boric acid solution, repeatedly running it in and out by means of funnel and rubber tubing. On May 7 I again catheterized the left ureter, finding the urine much clearer than on the previous occasion; and the boric irrigation was repeated. The same measures were carried out again on May 14, June 2 and 19, each time showing marked improvement in the urine in its clearness and freedom from infection; and the various symptoms for the first time had been ameliorated to a satisfactory extent. Each time after catheterism the patient went from my office to his work, which he was enabled to resume with energy and ability. He was discharged from further treatment, and has needed nothing of the kind for a number of months.

This was a case of bacterial infection and irritation, not only of the bladder and urethra, but also of the left ureter and pelvis; and as rapidly as the infection of the urethra and bladder was removed, it was just as quickly renewed from the infecting focus above. With this removed by the ureter washing, the whole case was cleared up and relieved. I have noticed in such cases of bacterial infection that one must be vigilant and persistent for some time after the disappearance of the bacteria, as they are prone to recur even after having been cleared up a number of times.

I have had two other cases—one male, the other female—that were the subject of unilateral pyelitis chronica that were

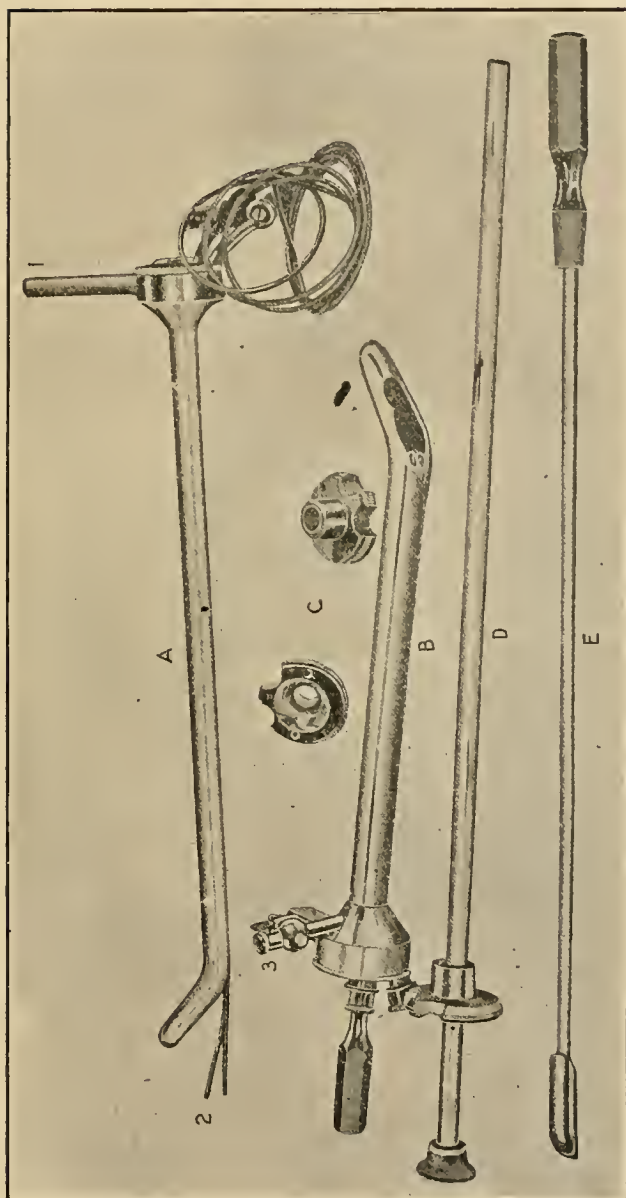


FIG. 1.—A, Male ureter-cystoscope; B, female ureter-cystoscope; C, windows of both; D, periscope or telescope; E, obturator of male instrument. 1, Handle for electric connection; 2, catheters projecting from ureter-tubes; 3, air-tubo and cock.

markedly improved by similar pelvic washings. I have not yet seen any serious consequences ensue from ureteral catheterism; and I am the more convinced and gratified at this fact since I have had some experience with tuberculous infections of the urinary organs, that *noli me tangere* of this field. If there is anything that may be counted on to do harm to tuberculously inflamed urinary organs it is local instrumentation. And yet the records of the following two cases fail to indicate any harm done, and, on the contrary, recite extremely gratifying results for tuberculous processes.

CASE 3.—Mrs. H. S., referred by my friend, Dr. Goehner, of Nashville, Illinois, came in January, 1902; aged twenty-five years. To rehearse the endless symptoms and agonies suffered by the patient afflicted with active tuberculous inflammation of the bladder and other urinary organs is scarcely necessary here; but this poor woman had her share of them. The symptoms began two months after marriage, in 1893. Without any vaginal discharge, she noticed rather rapidly increasing frequency in urination, and, as she expressed it, she could not hold the urine at all in a short time thereafter; there was much sediment in the urine, and often it was quite bloody, or the dripping of pure blood at the end of urination. There was some pain in the back on the left side, passing thence down into the left hip. She lost in weight, and at the time of her arrival in the city she looked cadaverous. The mixed urine taken from the bladder contained both blood and pus, as well as many tubercle bacilli. Cystoscopy with a Nitze instrument proved a failure because of the rapid clouding of the fluid medium; but with my own female cystoscope I not only discerned tuberculous ulcerations in the bladder mucous membrane, but succeeded in catheterizing both ureters successively. The urine from the right side gave pus, blood and tubercle bacilli in abundance, whereas that from the left side showed only moderate involvement in the inflammatory process, and we could not find any tubercle bacilli in it. Iodoform oil injections into the bladder were used regularly for a time. There was such decided amelioration in the symptoms and improvement in the general condition, clearing of the urine, etc., that the patient would not listen to any operative procedure, even if I had urged it on her, which I did not, in view of the improvement. If we could have eliminated tuberculous infection of the bladder and the other kidney, the removal of the tuberculous right kidney would have been the procedure of election. But since the bladder was proved to be involved, I deemed it best to try general tonic treatment combined with the iodoform injections mentioned. My last report from the patient is that she has improved much both locally and generally. Her weight has increased considerably.

CASE 4.—*Hemorrhagic Cystitis and Pyelonephritis Bilateral*

alis.—This case shows the difficulty and uncertainty of diagnosing the source of hemorrhage from the urinary tract in some cases. I have on a former occasion reported a case of renal hemorrhage that gave symptoms and indications that led to the positive but erroneous diagnosis of the vesical neck as the source of origin. F. L. I., aged twenty-eight years, a storekeeper, male, was referred to me by Dr. W. H. Stauffer, of this city, on March 31, 1902. Following after a prolonged attack of acute primary urethral gonorrhea, there were various heroic measures adopted by the patient's first physician, the final one being a strong irrigation of permanganate of potassium. This set up a severe strangury, excruciating pain both between and during urinations, and the passage of large quantities of blood in the urine, besides fever, chills, etc. On receiving the patient, Dr. Stauffer adopted various soothing treatments, but with only moderate degree of success, and then referred him to me. Because of the depleting agencies present, the patient was extremely weak and anemic. With each act of urination there was spasmodic straining, severe pain, followed by the squeezing out of blood or clots. Strong sedative measures were instituted, absolute rest, hot applications, but no injections or irrigations into urethra or bladder. While moderate improvements resulted, there was persistence of the bleeding and of certain of the symptoms (strangury, etc.), and occasional relapses, so that by the middle of April not enough benefit had been attained to justify the continuance of the measures directed on that line, which had included the injection of adrenalin and of gelatin solution, and the internal administration of ergot. Besides, his anemia was becoming alarming.

Because of the persistence of the bleeding, notwithstanding the freshness and brightness of the blood (which would naturally incline one to think it coming from the bladder only), I began to think that it was coming from a point higher up in the urinary tract. Therefore, under cocaine anesthesia, I introduced my cystoscope on April 20. Free bleeding from the bladder membrane was clearly evident in the neighborhood of both ureter openings. It was so free that no view could have been obtained by one using a lenscystoscope with fluid medium for bladder distention. The fluid would have been clouded almost before the instrument could be introduced, putting an end to the endeavor. With mine, however, and air-distention this made practically no interference, so far as the observation of the bladder was concerned; and when it came to inserting the catheter into the ureter opening, I adopted a manœuvre that was quite successful in keeping the field clear of blood while I searched for the opening. That is, I ran the ureter-catheter beyond the end of the cystoscope, down into the base of the bladder where the blood was collecting in a little pool; an assistant kept up continuous aspiration from this pool by pump-

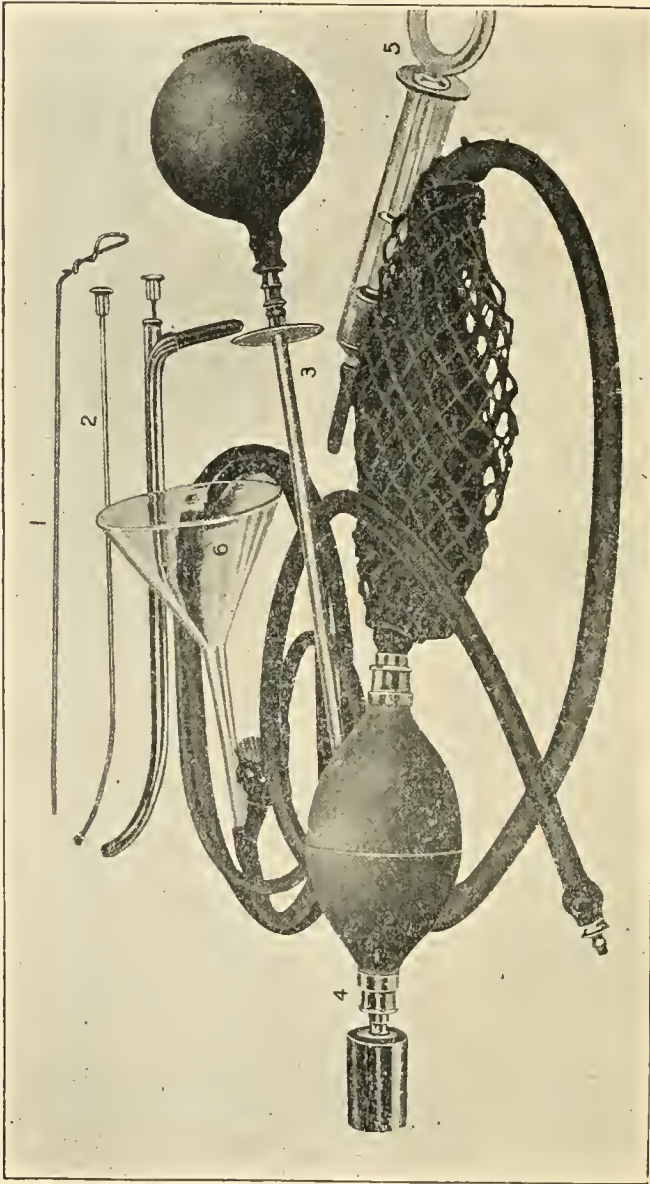


FIG. 2.—1, Aluminum swab or applicator; 2, urethral tablet depositor and obturators; 3, aspirator; 4, inflating bulb with metal extremity for receiving warm air; 5, syringe; 6, funnel with tubing for irrigating kidney pelvis.

ing on the outer end of the catheter while I was searching for the opening. It was easily found; the catheter was withdrawn sufficiently to bring it in range and run it into the ureter. A small quantity of very bloody fluid was the result, showing that although bleeding from the bladder membrane had been demonstrated, that was not the only source: it was coming also from the left kidney. And, in order to complete the investigation, I catheterized the right ureter two days later, and drained bloody urine from it, too. Hemorrhagic cystitis and pyelitis bilateralis was the more complete diagnosis, then; and the numerous rod-shaped bacilli (appearing in two ureter urines) gave a clue to the cause of condition: Extension of a mixed infection upward, following a gonorrheal urethritis, possibly superinduced by injudicious medication.

A surprising sequence of this instrumentation was that instead of its making the patient worse, causing renewed chills, etc., marked improvement began from that day, and he gradually recovered from the severer symptoms, while the bleeding, frequency, and other harassing effects disappeared to a large degree. Now there is occasional tingeing of the urine with blood when he has been too active physically, and he is not yet entirely well, but pelvic inflammations of the kind are not prone to get well in a hurry. I recently began the use of boric irrigations into the renal pelvis, and have attained further benefit this way.

CASE 5.—*Tuberculosis of the Bladder and Both Kidneys.*—Male patient, aged thirty-six years, referred by Dr. Vernon, of Charleston, Mo., consulted me first in December, 1901. He had had an attack of gonorrhea sixteen years before, but the present affection was first felt nine years ago. There had been, in addition to the usual irritative symptoms, a large collection of pus in the urine, urinary frequency, and also occasional attacks of pain in the left renal region, simulating renal colic. I catheterized each ureter successively with local anesthesia and without much inconvenience, notwithstanding the excessive tenderness always present in urinary tuberculosis cases; purulent urine was drawn from each side; and guinea-pig inoculation with each gave positive results, so that tuberculosis of both kidneys was proved; and through the cystoscope tuberculous ulceration of the vesical membrane was apparent. Iodoform emulsion injections, together with guaiacol and cod-liver oil internally, were used in this case also, and have given considerable improvement both locally and generally. Operative interference in this case is out of the question, of course. That was made evident by the ureteral catheterism. If this procedure were always followed out in such cases, we would not hear of one tuberculous kidney being removed while the other one, even worse affected, is left to do the work of two, fails in the undertaking, and the patient dies long before he otherwise would.

CASE 6.—*Movable Kidneys ; Unilateral Pyonephrosis ; Operative Fistula.*—Mrs. I. S., housewife, aged twenty-seven years. This case illustrates the necessity of making a complete rather than a partial diagnosis of urinary affections, and the difficulties that may follow neglect in this particular. Married in 1894, the trouble began in 1898, with frequency and pain in urination, and the occasional passage of blood in the urine. A surgeon diagnosed cystitis, and for its relief made an opening through the vesicovaginal septum ; that opening has been draining ever since, even to the present day. It did not relieve the distress in frequency, nor the pain in the bladder and both lumbar regions ; and when she consulted me in March, 1902, she had practically given up her care of her household. On looking into the bladder I could see the fistulous opening, from which the air of my inflation quickly escaped into the vagina. The bladder wall elsewhere was relatively unaffected. Catheterism of the ureters gave, for the right, clear, healthy urine ; for the left, cloudy, purulent urine ; and tests of the renal pelvis showed that it possessed considerable capacity—was able to hold about a half-ounce of boric solution, the explanation of which was learned when I palpated the lumbar regions. While both kidneys were found to be movable (the right one moderately so), the left one hung far down into the abdomen while the patient assumed the erect posture, and easily slipped back into its proper place on her reclining. In falling downward and forward, it had been in the habit of making a kink in the ureter, obstructing the outlet through the ureter, distending the pelvis, and furnishing the “receptive state” for bacterial invasion that resulted in the pyelitis and incited the various symptoms of which she complained. The indication in this case was, not the making of a urinary fistula, but the anchoring of the two kidneys in their proper place, followed, if it proved to be necessary, by the regular washing of the left renal pelvis. As she had suffered much both from the affection and from previous surgical manipulations—she had been operated on three times for the closure of the fistula, and without success—she could not be prevailed upon to undergo another surgical procedure of any kind, and so carries her condition to the present.

CASE 7.—*Pyonephrosis and Perineal Abscess.*—Male, aged thirty-nine years, had suffered many years from pain in the back and other symptoms of chronic urinary affection. Because of this and of purulent urine present, the Harris segregator was used, giving comparatively clear urine from the right side but cloudy urine from the left. It was considered from this, by the surgeons who made the test, that there was pyelitis present. Later I was asked to make ureter-catheterism. I inserted the catheter into the left ureter, but it would go in only a part of the way ; it was withdrawn and reinserted several times before it finally was

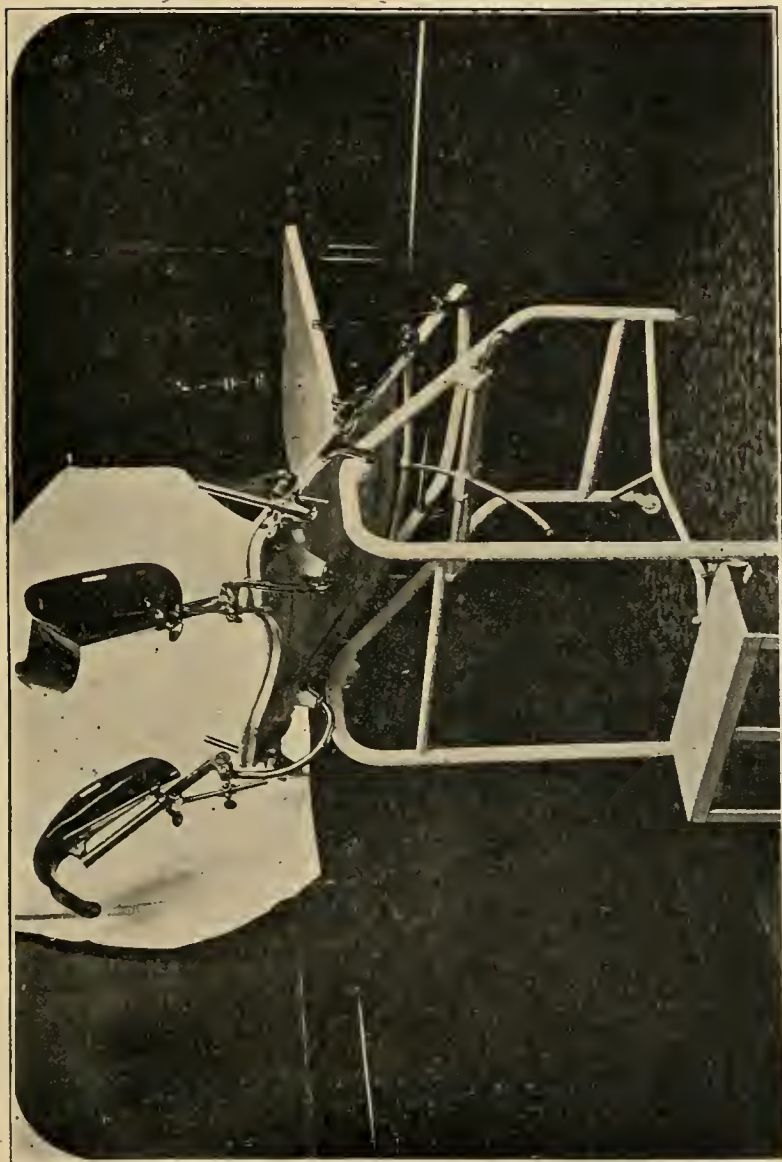


FIG. 3.—The Brunsford Lewis genito-urinary and gynecological operating table in position for ureter-catheterization or cystoscopic examination.

pushed up about two inches into the ureter. Even then it did not drain immediately; so, after waiting ten minutes or so, I applied aspiration to the outer end of the catheter and by strong pumping got out *one drachm of pure pus*. Instead, then, of there being simply a pyelitis, there was renal abscess with an imperative demand for operative interference. On operating through the left lumbar region, I found the kidney dilated with over a pint of pus, and a stone in the renal pelvis. The segregator could not possibly have attained the results given thus by catheterism and the strong aspiration. The thick pus was not draining from the ureter, and could not have gotten into the segregator from the ureter, and hence could not have gotten into the segregator tube.

These cases present some of the clinical phases of ureteral catheterism. They do not rehearse anything so very remarkable in the way of results in treatment, etc., but they serve to show that ureter-catheterism, in both male and female, has been reduced to a practical procedure that should rapidly become of great service to the profession. It is no longer an idealistic manoeuvre that we hear about but never see, but is one that is accomplished every day by those versed in it, and with the highest degree of satisfaction.

While the complicated and costly European instruments have not done much to popularize the procedure, I believe the simpler ones of American make will soon do the missionary work that will enlist the attention of the profession in the practical nature and value of this field.

While most of the ureteral catheterism that I have done has been accomplished with my model containing only one channel for ureter-catheter, my latest model is double-barrelled; so that with two catheters in place, after inserting the lighter colored one into the left ureter and pushing it far enough into the ureter to keep it from pulling out during the further manipulations, the inner end of the cystoscope is turned towards the other ureter, the remaining catheter (a dark one) is inserted into it in a similar manner; the cystoscope is then withdrawn, leaving the two catheters draining synchronously from the two kidneys. This (synchronous ureter drainage) is of great value, not only in the way of affording immediate results and avoiding repetition of the procedure, but also for comparing the secretions of the two kidneys at the same time and under the same general influences. This feature has been elaborately studied by Casper. By it is determined the relative functioning capacity of the two kidneys, etc.

Technique for the Bransford Lewis Ureter-cystoscope.—Extended descriptions of the previous forms of this instrument having already been given (first presentation before the American Association of Genito-Urinary Surgeons, May 1, 1900, *Journal of Cutaneous and Genito-Urinary Diseases*, 1900, page

420), the present form is easily understood (Fig. 1). Its main points are, an ocular tube, a handle, and a beak containing the small cold electric lamp. The electric contact is made at the handle. An obturator assists in the introduction of the instrument into the bladder, after which it is withdrawn and the ocular window is placed in its stead. This window is the only thing that intervenes between the eye and the object, that is, the bladder membrane, when it is undergoing inspection; there are no lenses, no magnification, no inversion of image, and no fluid to look through or become cloudy and prevent inspection. The lamp is a cold one, so that it cannot burn the membrane even should the two come in contact. The bladder is inflated with air through the stop-cock on one side of the instrument; and there are appended tubes to conduct the flexible silk web ureter-catheters to a point within a half-inch of the lamp, that is, directly to the field of inspection, so that though they are flexible they are under full control of the hand. A late addition to the instrument is a telescope with lenses, that, if one wishes, he can insert through the main (ocular) tube and inspect the membrane with increased field and imagination. Another addition that I think will be more serviceable than this is a telescope with a prism at the inner end, that will enable the operator to "look around the corner," so to speak, especially for the purpose of bringing the hypertrophied prostate or outgrowths from it into view. With this assistance I expect the definite diagnosis of the form of prostatic enlargement to be much simplified.

For the satisfactory use of this instrument it is necessary to have an operating table that is capable of giving high pelvic elevation, with the legs in flexion, for instance, in stirrups. With the patient placed in this position (excepting the pelvic elevation, which is made after the anesthetic is applied), the bladder is washed and emptied with a soft rubber catheter. This washing is merely for antiseptic purposes, not for facilitating the work of the cystoscope. One or two cocaine tablets (one and one-eighth grains) are then deposited in the posterior urethra and bladder neck by means of my urethral tablet depositor (2, Fig. 2). The foot of the table is now elevated to an angle of about forty-five degrees; the cystoscope is introduced, the obturator withdrawn, the small quantity of urine that has been collecting since the washing is sucked out through the aspirator (3, Fig. 2), the window applied to the ocular end, and the light turned on. While the operator is looking through the main tube, he gently pumps in some warm air by means of the inflating pump, and watches the walls of the bladder unfold and expand. A view of the whole interior of the bladder is obtained in panoramic sequence by moving the beak around; and when

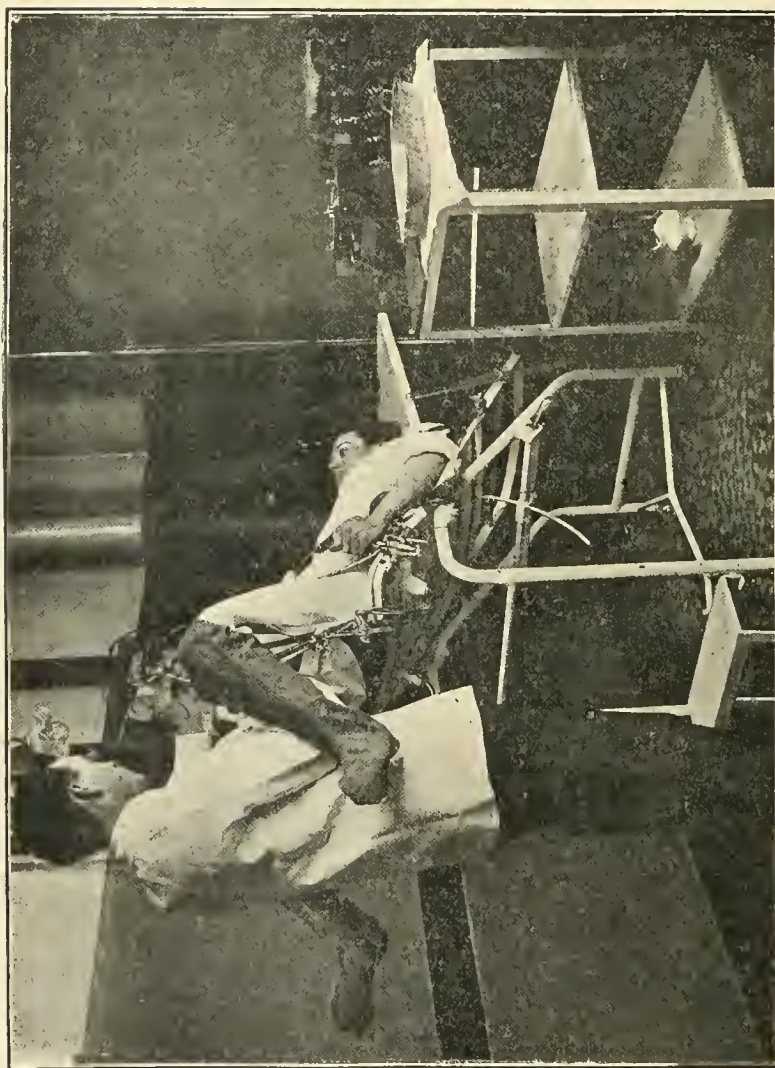


FIG. 4.—Table and patient in position for cystoscopy or ureter-catheterization; pelvis well elevated, legs comfortably supported by the crutches, giving no tendency to slip away from the operator; no strain in any respect.

the ureter openings are looked for they are sought at the upper angles of the trigone. When the little ridge or dimple indicating the location of one is found, the catheter is easily shoved into it, and on up into the ureter. If it is desired to catheterize the other ureter also, the first catheter should be inserted rather far up, to insure against pulling it out in the further manipulations. Then the beak is directed towards the other ureter opening: when it is found, the remaining catheter is pushed into it in the same manner as previously described. The electric cord and the air-pump are disconnected, the air-cock opened, allowing of the escape of air from the bladder, and the cystoscope is removed. Care must be taken in doing this to feed the two catheters into the tubes as the cystoscope is being drawn out, so that when it is removed the catheters are still contained in the ureters, where they may remain and drain the ureters for from ten minutes to a half-hour, according to the amount of urine desired for testing. During this time the patient may lie comfortably on the same table, which has been replaced in a more normal position. If either catheter does not begin draining in a reasonable length of time, gentle aspiration may be made on it by means of the small syringe shown in 5, Fig. 2.

If it is desired to wash out the kidney pelves, that is done after finishing the drainage. A glass funnel with four or five feet of soft rubber tubing attached is filled with hot saturated boric acid solution and connected with the ureter-catheter by a smaller piece of tubing, a piece of glass tubing helping in the transition between sizes, if necessary.

After these several manipulations, irrigations of the bladder should be carried out with some mild, soothing antiseptic, such as warm boric solution.

In the female, examination of the bladder and ureteral catheterism are more easily carried out, both because of the shorter distance to the bladder, and because of the lessened resistance offered the inflow of air. If the clothing of the female is well loosened about the abdomen, on elevating the pelvis and inserting the cystoscope and removing the obturator the bladder usually balloons out without the necessity of inflating with air. In the male, on the contrary, this is not usually the case, although it does sometimes happen where good anesthesia is secured.

One of the most troublesome impediments to easy cystoscopy and ureter-catheterism by this method is that offered by the persistently contracting bladder—a spasmodic condition that is beyond the influence of the patient's will, that holds the bladder walls in a rigid state, resistant to the required movements. This is best overcome by adding to the anesthesia. Withdraw the cystoscope, drain the bladder of accumulated urine, and deposit

one or two more cocaine tablets in the posterior urethra and vesical neck, then reinsert and continue the investigation. While no harm comes from the moderate inflation of the bladder with air, it is a fact that air is slightly more irritating to the membrane than water; but this is especially true of cold air. To obviate this, I am now using warm air, secured by an assistant holding the intake bulb over an alcohol flame during the process of inflation. When the telescope is in use, it is well to pump in the air through one of the ureter-tubes, since the telescope itself occupies the main tube. If at the same time it is desired to remove the balance of the inflowing urine, it may be aspirated through a ureter-catheter passed into the bladder through the other ureter-tube. In several of the cases that I have catheterized, I feel positive that, because of the rapidity of accumulating blood, catheterism could not have been accomplished by means of the lens instruments and fluid medium.

I would not advise any one to attempt ureter-catheterism without sufficient equipment to secure, at least, the necessities of the work; and chief among these is a table that will furnish pelvic elevation. This allows the inflowing fluids or blood to gravitate away from the field of search.

I have been much interested in studying the limits to which one may go in putting cocaine into the bladder without causing a toxic effect. While I have on several occasions noted systemic effect from the use of cocaine in the urethra, I do not remember of ever having observed it as a result of absorption from the bladder, although I have often used five or six grains in tablets. In doing litholapaxy in the aged, Dr. Chismore, of San Francisco, habitually injects two or three ounces of 3 per cent. cocaine solution into the bladder; and Dr. Swinbourne has mentioned equally satisfactory results from a similar use of cocaine in litholapaxy. I use tablets made in two sizes, one-half grain and one and one-eighth grains. The Rochester Surgical Appliance Company, of Rochester, New York, are the makers of the cystoscope, and I take pleasure in thanking them for the able assistance they have given me in its development, as well as for their accurate workmanship.—*By kind permission of the Annals of Surgery, January, 1903.*

HYPNOTICS, ANALGESICS AND RESULTANT DRUG ADDICTIONS.*

BY SMITH ELY JELLIFFE, M.D., NEW YORK.

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INSOMNIA and pain are the banes of existence of the patient with any nervous affection, and from his standpoint are in themselves the maladies from which he is suffering. He prays his physician for relief from one or both, knowing, alas too well, that the market is full of drugs that will bring him relief. It does not often occur to him that the physician has any more complicated mental process to go through than merely to choose the right drug to bring healthful sleep and to banish pain. Insomnia and pain may each be the cause of the other, or they may be the outward symptoms of an exceedingly complex condition of derangement.

CLASSIFICATION OF INSOMNIA.

In trying to study the causes of sleeplessness I have found it helpful to remember the classification of insomnia that Sir James Sawyer lays down in his "Contributions to Practical Medicine." He says:

"Cases of insomnia seem to divide themselves naturally into two groups, namely, of cases of what may be called *symptomatic insomnia*, and of cases of what may be called *intrinsic insomnia*. Symptomatic insomnia attends a vast variety of morbid states, and is secondary to them, or is part of them. Intrinsic insomnia, or insomnia *per se*, is a kind of wakefulness that seems to depend on the inability of the brain to adapt itself to the conditions of sleep.

"*Symptomatic insomnia*, or the sleeplessness that is one of the symptoms of a disease attended by severe pain is not so difficult to treat, provided the pain, or the elevation of the temperature, or the coughing be the only cause. We may control it either by using hypnotics or soporifics, or by giving drugs that will reduce the fever or diminish pain, or stop the cough; or we may combine the treatments, and use soporifics in conjunction with the remedies that will remove the causes of pain or fever."

The family physician who uses sulphonal or trional for the purpose of inducing sleep in severe illness, employs one of the most valuable aids to recovery, for sleep as a natural remedy in disease is as necessary as any therapeutic remedy. But, at the same time,

*Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Materia Medica, Pharmacy and Therapeutics, and approved for publication by the Executive Committee: Drs. A. W. Baer, A. B. Lyons and W. J. Robinson.

these drugs, if used continually, will of themselves cause the worst kind of insomnia, that in which natural sleep is absolutely impossible without the aid of drug.

Intrinsic insomnia, to refer again to the classification of Sir James Sawyer, is due to various causes, which he divides into three groups, viz., the *psychic*, the *toxic* and the *senile*.

Psychic Insomnia.—It is taught that the brain in natural sleep is relatively anemic. When the brain is in full working activity the cerebral arteries are well filled with blood from which the brain cells are rapidly receiving nourishment and ridding themselves of waste. During sleep the blood flows more gently and in smaller streams through the brain; and the brain cells are not expending energy, but are storing it up. Anything, therefore, which tends to keep up the activity of the brain cells and keeps the blood circulating freely through the brain tends emphatically to keep the brain cells from repose and the patient finds himself sleepless. The psychic causes of such brain activity may be the habit of thinking over business or work after going to bed, worry, anxiety, excessive mental work that will not let the brain cells cease working for several hours after the real work stops, sudden grief or shock, or form of preying sorrow, remorse or loss of hope.

Toxic Insomnia.—The toxic causes of brain activity are due to some poison, that maintains the arterial supply of the cortex of the brain at such a height and so long that wakefulness is inevitable. These poisons may be in the form of drugs that have become a habit; alcohol, or the milder stimulants of tobacco, tea or coffee, or, on the other hand, the poisons may be certain accumulated waste products of the patient's own metabolism.

Senile Insomnia.—Senile causes of sleeplessness are due to the age of the arteries. As the smaller cerebral arteries lose their elasticity their walls grow weak, and they are physically unable to regulate the flow of blood to the brain, which ought to be diminished at night to cause the sleep of youth.

On this brief classification of the causes of insomnia I would establish an outline of the kinds of treatment that are recommended by men of wide experience, with a discussion of the question of how far hypnotics may be used to relieve insomnia and analgesies employed to alleviate pain without danger of resultant drug addiction.

THE DECLINE OF STOICISM.

In the first place, I would say that the demand for relief from minor pains and slight insomnia has increased with the supply of remedies. Although my experience is limited to some ten or twelve years of practice, and I can not with authority compare the older days with the present, yet I think I may safely say that

people, as a rule, do not bear pain as bravely as they did before the days of anesthetics, analgesics and hypnotics. Such scenes of fortitude as Ailie's operation in Dr. John Brown's story of "Rab and His Friends," are, we are thankful to say, unnecessary now; but at the same time the day is past when women bore the pain of cancer, or the knowledge that they were dying of a tumor, to their graves without opening their lips to anyone save their physician. The brave serenity of spirit showed by Sydney Lanier, who was carried to his class room to give his lectures, and who never permitted his illness to be mentioned, and the gay stoicism of Robert Louis Stevenson, whose only reference to his hemorrhages were as to his friend "Bloody Jack, who was with him that morning," are examples of that heroism in suffering which I believe has become much more rare with the introduction of the many pain-relieving remedies.

Any sufferer may to-day, at the cost of ten cents, purchase temporary relief from a headache that is due to overwork, or an artificial night's sleep where sleep should have come naturally. To suffer is no longer deemed brave, it is deemed ignorant; but the little knowledge that will bring relief is too often a dangerous thing.

The result of this easy and sure means of obtaining relief has led patients, and sometimes physicians, to be too easily satisfied with relieving pain and giving artificial sleep instead of ferreting out the cause of the trouble and removing it, as they were obliged to do in the old days if they would stop pain.

I do not purpose to speak of drug habits acquired by patients who treat themselves, except to say that every analgesic and every hypnotic is dangerous if used indiscriminately; and that all patients should be emphatically warned that there is nothing that they can take regularly and persistently to relieve pain or sleeplessness without doing themselves permanent injury. Paradoxical as it may seem, the least harmful drugs are often the most deadly. Fewer men and women ruin their nerves by the abuse of chloral than they do by the use of bromides. I have had many patients the victims of the bromo-seltzer habit, who took high moral grounds against the use of morphine and chloral. I have entered a business man's office and seen it stocked with a winter's supply of bromo-seltzer, with which he proposes, as was his wont, to ward off his regular afternoon headache; and I have had as hard a fight to bring him, by means of travel, exercise and diet, to a normal state of health as in breaking a morphine fiend of his habit.

It would greatly lessen the dangers of drug habits if family practitioners would encourage patients to endure a certain amount of the pain and sleeplessness of general diseases, never saying, "I

will leave you something perfectly harmless that will make you sleep"; or, "I will give you something very new and very powerful that will stop that pain in ten minutes." The drugs for relief should, as far as possible, be combined in prescription with the drugs that treat the disease, or left without name or emphasis to be taken at the right time. In almost every case the abuse of phenacetin, antipyrin, acetanilid, the salicylates and allied products has begun by a physician calling especial attention to the efficacy and harmlessness of these drugs first prescribed to ease the pain and sleeplessness of some acute disease, such as tonsillitis or grippe.

THE USE OF FAKE SYNTHETIC FORMULÆ.

In this connection I cannot refrain from calling attention to a large number of combinations of well-known drugs of this class that are given fake chemical formulæ, and which, while substantially mixtures of such remedies as antipyrin, acetanilid, phenacetin and allied synthetics, yet nevertheless are claimed to be new and important synthetic discoveries. It is to be regretted, moreover, that there are to be found physicians who will describe at great length and in much detail the wonderful cures which have resulted from the use of some of these impossible synthetics. All honor should be paid and support given to the enterprising chemist who has devised a really good new product. The profit that he may make from it is legitimately his, but physicians, as a class, I believe, are too prone to accept unchallenged the statements of some manufacturers who put out misfit combinations.

It is not expected that we as physicians should bear always in mind the chemical lore of our laboratory days, but a more careful scrutiny of the great flood of newer synthetics is advisable if not imperative. Moreover, when it is to be borne in mind that many of these so-called newer synthetics are sold for from fifty cents to one dollar an ounce, when their constituent parts may be purchased for from ten to twenty cents per pound, the robbery is made possible only under the guise of a trade name, and if the education of the physician is not sufficient to protect the public, then legislation is imperative.

HOW TO TREAT INSOMNIA.

As a rule the few doses of such drugs that are necessary to bring relief in acute diseases, whether to ease pain or to bring sleep, lead to no habit. As soon as the body has recovered its tone, and so soon as the cause of the pain is removed and the pain itself has disappeared, the body does not crave a repetition of the drugs. Even opium, in any of its forms, can be borne well and leaves no bad effect when intelligently prescribed. The sole danger in such

cases, I believe, lies in the fact that the patient knows what has given him relief, and will, inevitably, tamper with the fascinating drugs when he has some minor ailment in the future. He then almost invariably runs a twofold danger: by continually giving himself relief from a pain that ought to be investigated he ignores the cause of his pain until his disease is pronounced, and in the meantime has by repeated use of the drug habituated his nervous system to overstimulation.

These cases in which pain and insomnia were at first merely secondary phenomena form a large percentage of the patients who afterwards come to us to be treated for the toxic form of insomnia *per se*.

In the severer grades of psychic insomnia it is often necessary to secure a few nights of artificial sleep at any cost; for the sleep of itself will in a few days induce sleep and the doses may be tapered off, or the need for them will stop naturally. In the cases of insomnia following sudden shock, great mental excitement, the anxiety attendant on strain or business, or the nervous state of worry in women that is accompanied by a hysterical breakdown, it is wise to give hypnotics and to induce sleep until the body is thoroughly refreshed. In such cases many physicians prefer, I think, with good reason, opium or chloral, or their combination, although of late years the use of trional and sulphonal with some of the modifications of chloral, chloralamid, etc., have given excellent results.

Sir Lauder Brunton has suggested with much wisdom that a combination of hypnotics is more successful than any one of them singly. He recommended the now well-known mixture of small quantities of morphine, chloral and the bromides, and this is a favorite combination of a great many of us.

POPULAR KNOWLEDGE OF OPIUM UNDESIRABLE.

Whenever opium enters into the prescription for the relief of insomnia or pain, too much caution can not be urged. This is an oft-repeated tale, and yet from the crop of habitues of this drug that I see yearly, it seems not altogether to have been learned. At the same time, it is my own firm conviction that there is too much popular knowledge of the effects of opium, and personally I should condemn in the strongest possible manner the practice of the Woman's Christian Temperance Union of imposing on the public the 10 to 25 per cent. of information regarding alcohol and opium which they make obligatory in the publication of school books. The giving to the young and immature a knowledge of the seductive activities of any agent is, in my humble opinion, a practice worthy of the severest criticism.

THE NEWER OPIUM DERIVATIVES.

But this leads away from the last topic of my paper, the new opium derivatives. These, heroin, dionin, and peronin, as is well known, are derivatives of morphine; modifications by chemical substitution of groups of atoms. They are distinctly not morphine, and their activities have definite and distinct individualities. The pharmacologist who would alone register blood pressure, respiratory activity and heart beat, may maintain that these drugs have an identical action; but he does so on very meagre and insufficient data. The psychologic manifestations of the activities of these drugs are distinct and in the genesis of drug habits, the brain and its activities is the all-important factor, heart beat and blood pressure are secondary.

Of the opium habit I need say nothing; physicians are acquainted with its general features, but in this day and generation what may happen on account of this widening out of our therapeutic possibilities?

I believe that just as phenacetin, antipyrin and acetanilid, trional and the newer chloral combinations have so richly supplied the profession with weapons to attack pain and insomnia and have thereby lessened the danger of the opium habit, so the introduction of the new morphine derivatives will afford a like refuge for those patients for whom opium seems imperative. They will lessen the great amount of the morphine habit even if at times they may induce a habit of their own. That they do is no question, but I have dealt with this subject elsewhere.

To my mind the question of drug habits, so far as the physician is concerned, in large part resolves itself into a number of simple restrictions that we shall place on ourselves. These may be expressed as follows:

CONCLUSIONS.

1. Prescribe the drug which will do the work required to produce sleep or relieve pain, but let it be so graduated with reference to dosage and choice of remedy that it will be the least harmful if used steadily.

2. Keep our mouths tightly shut as to what we are using. Do not say, "Take 1 gr. phenacetin, 10 grs. of salol, $\frac{1}{2}$ gr. of codein." Give it to the patient if necessary, but do not under any circumstances permit him to know what it is. That is a medical question, and if the information is imparted its circle of pernicious activity radiates further than we can imagine.

3. Wage incessant warfare on the many pirates who provide all sorts of reliefs to the public, going directly to them through the lay press and the magazines.

4. In conclusion, let it be remembered that the introduction of newer drugs, rightly set forth by honest chemists and worthy clinicians makes most desirable accessions to our armamentarium; but that false pretense and economic robbery of an unsuspecting public deserve united condemnation and opposition.

DISCUSSION ON THE PAPERS OF DRs. SPRATLING AND JELLIFFE.

DR. FRANK WOODBURY, Philadelphia.—The author referred to the laws of China, but not to those of Japan, which present a marked contrast. The Japanese government apparently modelled its regulations of the sale of nostrums on the plan of Austria. It requires the registration of actual formulæ, and if any are found which do not correspond to the formula their sale is forbidden under penalty. Furthermore, if any compound or preparation is considered by the health board as injurious or dangerous, its sale is absolutely prohibited. Finally, those that are shown to be useful have their price regulated, so that the sick shall not be charged extortionate prices. These laws are not only in marked contrast to the absence of regulation in China, but they are also far in advance of our own.

DR. H. C. WOOD, JR., Philadelphia.—Most of the members of the American Medical Association have decided views on the subject of self-medication and on the dispensing of medicine by the physician who thus invades the province of the pharmacist. I think that this practice is attended by great danger to both professions, and to the patients as well.

With regard to the suggestion of Dr. Spratling about instructing the laity, I think that it would be better to remove the beams from our own eyes before attempting to remove the mote from our brother's eye. For instance, many of the preparations now in use among physicians are nothing more than secret preparations. Only this afternoon, in coming into the room, I picked up a circular containing the advertisement of a preparation made by Rigaud and Chapoteaut, which is not only advertised to the profession, but is also advertised to the public in the daily papers for self-medication. The remedy for this evil is difficult to find. Dr. Spratling has suggested popular lectures as a means of instructing the public; perhaps some papers read before medical societies might afford a good introduction to the general discussion of the subject.

The final recommendation is not possible in the United States. The sentiment of the people would be against it as being antagonistic to American ideas. Much, however, can be done by the proper exercise of legislative control. The greater part of the protection to nostrums is due to copyright laws. Probably the protection by copyright is more than is needed. If the profession would try

to overcome the copyright protection of nostrums, it would accomplish a great deal toward breaking up this kind of self-medication by the laity.

DR. W. J. ROBINSON, New York City.—The papers are both valuable and timely. The suggestion that physicians should contribute articles to be published in the daily papers is a good one; but to pay for their publication would cost too much. If the articles were well written, no doubt the papers would be glad to get them as matters of interest to their readers.

I am surprised to hear Dr. Spratling's remarks on the careful regulation of the sale of patent medicines in France. I have been in France myself, and that is not the opinion that I would have formed from my own observation. There is hardly an old wall in Paris that is not covered with advertisements of proprietary articles, and the little kiosks, or public urinals, are covered with directions for self-treatment for venereal disease and lost sexual power, the remedies to be bought at all pharmacists. Possibly the laws are on the books but are not enforced. Patent medicines are everywhere in evidence in Paris, even the illuminated kiosks at night are covered with announcements of new nostrums.

With regard to the remark about patients bearing pain much less than formerly, I believe this to be true. We can not go into the lying-in chamber without taking with us a bottle of chloroform or ether, and we use them for slight surgical operations, often, indeed, against our better judgment.

A remark has been made about physicians of the present day giving simple substances, instead of the complex preparations that were formerly in use. This is in the direction of more accurate and scientific prescribing. This has been recognized by the Pharmacopeia, and the physician now has at his command many articles in the form of active principles and simple substances that it was impossible to get formerly, except in combination. This is a fact known to every chemist; but the average physician is slow to understand it.

About the evils of self-drugging, everyone present can recall instances. I recall a patient who took, every day, sixty grains of phenacetin, and who claims that when he goes without it he suffers with headache. It is impossible to say whether the headache is really caused by the want of the phenacetin or whether a phenacetin habit has become established. Another patient who had a syphilitic headache when a young man, and was cured of it by the biniodid of mercury, for years afterward was in the habit of recommending this drug to his friends when they complained of having headache.

DR. W. L. DICKERSON, St. Louis.—I have observed that, just

at the close of the sessions for the last four or five years, there has been brought up for discussion this most interesting subject when there are very few to discuss it and very little time to do it in. It seems to me that, in trying to regulate this matter of the use of proprietary preparations, we must begin with the profession itself. The pharmacists of my neighborhood can always tell when an agent for a drug manufacturing house is going around visiting physicians, because on the next day there will be several prescriptions calling for these special articles to be put up. Physicians know absolutely nothing of the composition of many of these preparations, and yet they take the statements of the agents, or the advertisements, as their authority. Certainly if a man makes a really valuable discovery or contribution to medical science, he should receive the advantages derived from the sale, but in that event he should patent the drug, and then we would know what it is that we use, for the composition must be made known of articles that are patented.

With regard to the habit of self-medication with narcotics, I think that there is a danger of such habits being formed if the physician places prescriptions of this kind in the hands of his patients indiscriminately. I am in the habit, when prescribing for a patient suffering with pain, to give a tablet of morphine from my hypodermic case and give a prescription for whatever else may be required. In this way, the patient gets the prescription without the opiate and there is less danger of forming the habit by refilling the prescription.

DR. W. P. SPRATLING, Sonyea, N.Y.—The tone of one of the speakers would seem to indicate that general legislation could not regulate the manufacture and sale of proprietary medicines in the United States. Such may be the case, but I think that the profession can secure some legislation if an effort is made. We can get laws to control the adulteration of food supplies, and I think the necessity for the protection of the public against injurious medicines is just as great in some instances as that of securing better food. The statements I made concerning the regulation of drugs in foreign countries was taken from consular reports made to the Department of State in 1898.

DR. S. E. JELLIFFE, New York.—The proposition seems to be a very simple one, and one that could probably be settled in five minutes if we, as a profession, were all ideal ourselves; but we are not all ideal by any means. For instance, I have known this to occur: In New York City a very enterprising manufacturer devised a scheme to increase the sale of his particular produce. He issued pads, with printed prescriptions; each one had a coupon attached; for every one of these coupons representing orders sent

to the drug store, the physician would receive 25 cents. If there are physicians of such character among us as to stoop to participate in a scheme like this, what can we say to the public or to the manufacturer of proprietaries?

COMMITTEE APPOINTED TO MAKE RECOMMENDATIONS.

DR. A. W. BAER, Chicago, moved that a committee of three members of the section be appointed on the subject of these papers, to report at the meeting of the section in 1903, making such recommendations as they think fit. The resolution was unanimously adopted and the chair appointed to serve on the committee, Drs. Baer, Robinson, and Wood.—*Journal of American Medical Association.*

THE "LANCET" SPECIAL COMMISSION ON NATURAL MINERAL WATERS.

THE following extracts from the report of *The Lancet* Special Analytical Commission on Natural Mineral Waters, in this case Hunyadi Janos water, are interesting and speak for themselves:

Natural mineral waters of the purgative saline type have been brought so prominently before the notice of the profession of late that in the interests of therapeutics and pharmacology it is desirable that an exact knowledge of the chemical composition of these waters should be known, while it is also important that those who may prescribe them should have some assurance as to their constancy of composition and purity. A carefully conducted analysis will, of course, establish the composition and therapeutic value of the water and the relation of the constituents which it contains, and may afford, in addition, some evidence on the question of its natural origin. The evidence of chemical analysis alone, and without other facts being taken into consideration, cannot be regarded as affording a decisive answer to the question—Is the water a natural one? It is quite within the bounds of possibility to so imitate the chemical composition of a natural water, even in regard to the rarer constituents, as to defy differentiating by chemical means. We are not aware that such deceit is ever practised, but it is possible. To do this, however, with anything approaching exactness would involve considerable skill and trouble, especially in regard to the smaller constituents and towards securing the correct ratio of the constituents to each other. So far, then, a chemical analysis giving not only the proportions of the chief constituents, but also of those that are considerably less in amount, would afford some clue towards discriminating between a water of natural occurrence and one that is a prepared pharma-

ceutical product. It is, therefore, of no small importance that the practitioner should be in possession of as complete an analysis as possible of the water he may recommend, and, further, any additional evidence as to the general *bona fide* character of the water and as to its purity should not be disregarded.

The Lancet has published independent analyses from time to time of several natural mineral waters with the view of enabling the profession to judge the probable therapeutic value for themselves. To put them in possession of further facts relating to the natural source of the water is obviously difficult in the absence of any practical acquaintance of its history at the fountain head and of its surroundings, as well as of the modes of collection, bottling, and dispatch. The circumstances as to how such waters occur in nature, as to the probable origin of their constituents, as to the methods of collecting the water and distributing it, are, it must be admitted, not matters of common knowledge. At any rate, it is important that a practitioner should know these details in regards to a medicinal agent which he may be constantly prescribing, and the facts concerned cannot but prove of general interest also. An opportunity has recently occurred to one of our Commissioners whilst on a visit to several of the largest cities on the continent of inspecting one of the most extensive and most widely known establishments where an unlimited supply of natural bitter purgative water of the sulphate class occurs, and the occasion is one which may be taken advantage of in presenting our readers with what we venture to think should prove an interesting account of the processes he witnessed there. The establishment referred to is that belonging to Mrs. Saxlehner and founded by her husband (the late Andreas Saxlehner) in 1863.

It is from the Saxlehner springs that "Hunyadi Janos" water is derived, the prototype of all bitter waters and especially distinguished by that name. Parenthetically it may be stated that the name "Hunyadi Janos" in no wise relates to the district; it is the name of a Hungarian celebrity, John Hunyadi, who flourished in the fifteenth century, and after whom the water was called by its discoverer. The valley in which the Saxlehner springs are situated is known as the "Orsod" valley, which is located a few miles south from Budapest on the right bank of the Danube. The property comprises some 280 acres, of which 120 are employed for obtaining Hunyadi Janos water, and entirely occupies the valley, which is bounded by a series of picturesque hills which may be regarded as remote branches of more rugged mountains beyond. The wells are covered in by a wooden structure which is proof against weather, and they number over one hundred. The surface of the ground is practically level, is covered with luxuriant grasses, and is very soft to walk upon. The wells

are shallow and in the majority of cases not more than eight metres deep, the surface of the water when the well is full being within two metres of the ground surface. Special precautions are therefore taken to prevent contaminations with surface drainage, and to this end the well is lined with strong cement about two metres deep. At the bottom is impenetrable clay. Not only are strict precautions taken against the ingress of surface water, rain, and so on, but on no account is human refuse or dejecta of any kind allowed to be disposed of on any single portion of the property. Human excreta is carried away and disposed of in Budapest in an approved way, and even the dejecta of horses is carefully excluded from the vicinity of the wells. These precautions are admirable, and the same spirit of carrying out what in the interests of sanitation and of the purity of the water is imperatively demanded obtains also in every other matter.

The well-house is closed by flaps provided underneath with aluminum sheeting. There is a small square opening in the left flap which is used for the shaft of the pump and is of small size to exclude as far as possible dust and other objectionable matters. At the back of the well is a pipe running vertically, which serves to ventilate the air space in the well. The apparatus seen in the illustration to be resting on the closed flaps was part of that employed by our Commissioner in making certain tests on the spot. Thus to the left is a hydrometer case, and to the right of this again two cylinders, one containing the water with a hydrometer floating in it and the other a thermometer; to the right of these again is a bottle conveniently attached to a cord for the purpose of obtaining a sample. In the far right-hand corner will be observed a small well with circular opening and flap, which in the illustration is open. This consists of a small chamber quite separate from the well itself just described, which communicates by means of earthenware pipes with a reservoir situated just outside the filling house some 100 feet away. The level of the reservoir is somewhat lower than that of the well cistern, so that when water is discharged into the cistern it finds its way along the pipes to the reservoir. In other words, this cistern at the well acts like a large funnel for the purpose of conveying the water away to the reservoir previously to its arrival in the filling house. This is done by attaching a pump to the big well when the well is full and pumping the water into the small cistern referred to. Thence the water flows by gravitation into the large reservoir. The pump sucking up the water from the well and discharging it into the cistern through a pipe to the right will now be readily recognized.

The contents of each well are thus discharged into a large reservoir into which the waters from various wells flow and where they attain a uniform degree of density or specific gravity,

and, therefore, of composition in regard to saline constituents. In no stage in the collecting process is there any interference with the natural character of the water—nothing is added and nothing is abstracted. Moreover, the water of one well that may be slightly weak is compensated by mixing with the water of another that is slightly strong, so that what is bottled is absolutely constant in composition. This will be found to coincide with the analysis made by Liebig and corresponding with a density of 1036 at 60 degrees F. The temperature of the water in the wells averaged 51 degrees F. The analysis given by Liebig of the waters bottled at this density is as follows:

Sulphate of magnesia.....	16.91	parts	per	1000.
Sulphate of soda	15.91	"	"	"
Sulphate of potash.....	0.08	"	"	"
Chloride of sodium.....	1.30	"	"	"
Carbonate of soda.....	0.79	"	"	"
Carbonate of lime.....	0.93	"	"	"
Carbolic acid, free and in solution.....	0.52	"	"	"

The water of constant degree of density is next elevated into a large wooden vat situated in the filling house. This vat is thoroughly cleansed by means of steam twice weekly. Thence the water is allowed to flow, according to the number of bottles being filled, into the ingenious filling apparatus situated almost exactly below the vat. Corking, capsuling, and labeling complete the process. The capsuling process is particularly ingenious, as is also the filling apparatus, which was specially designed for the water is allowed to flow, according to the number of bottles twenty-four hours. It should be added here that all the wells yielding the Hunyadi Janos water come under the control of the head office of the first district of Budapest, which is subject to the authority of the Ministry of the Interior, who have the entire administration of affairs in Hungary over the whole of the mineral waters, springs, and health resorts in the country. Further, as regards filling and corking and their management, these establishments and wells are submitted from time to time to local inspection, executed by the officials of the district head office, whose competency is established by the existing laws and orders; and, again, bottles filled in presence of the officials and sealed before them for the purpose of authoritative supervision and control are, if considered necessary, officially analyzed.

On examining the label of one of the samples so obtained the following Hungarian statement translated into English occurs: "The natural Bitterwater contained in this bottle was yielded from the Hunyadi Janos Springs, property of Andreas Saxlehner, in the presence of the Chief of the District, mentioned below, and the bottle was officially sealed. Budapest, 19th December, 1884.

Office of District No. 1.—Signed by the Secretary and Chief of the Municipality District.”

The establishment is open to the inspection of visitors, and especially medical men, on presenting their card at the Saxlehner Offices, No. 3 Andrassy Street, Budapest, and the Saxlehner Spring, whence the Hunyadi Janos water is derived, is counted one of the sights worth seeing in and around the interesting and enterprising city of Budapest.

The most satisfactory way of establishing the honesty of a natural water is undoubtedly to secure specimens on the spot and to make independent analysis of them and to compare the results with samples obtained in the ordinary way on the market. If the results coincide there can remain no doubt that the water offered for sale is precisely the same as that drawn from the fountain head. Our Commissioner having obtained the permission of the proprietors, which was freely given, to select samples wherever and whenever he chose and from any single well out of the hundred on the property, or of specimens in the filling apparatus, proceeded to do so, the samples being subsequently sealed and sent to *The Lancet* Laboratory for complete analysis. At the same time some dozen samples of the water were purchased in various and widely separated parts of London for analysis also, with the view of contrasting the results.

In order to make the search for rare constituents as thorough as possible no less than 25 litres of the water direct from the filling apparatus, and showing a density of 1036, was evaporated carefully down to dryness in a shallow copper vessel. This operation was conducted at the spring, and a clear crystalline residue was obtained, which was found to weigh nearly 1000 grammes (more correctly, 917.81 grammes), or 2lb. 0 $\frac{3}{8}$ oz. This amounts to 36.71 parts of salts in 1000 parts of the water, an amount which almost exactly coincides with that obtained by Liebig. Considering that probably Liebig operated on a comparatively small volume of the water, and that in the experiment just described no less than 25 litres, or 44 pints, or 5 $\frac{1}{2}$ gallons, were employed, the results are remarkably close and testify to the uniformity of composition of Hunyadi Janos water.

In Honor of Dr. Osler.—The ex-resident physicians and associate physicians of Johns Hopkins Hospital gave a dinner, May 15th, at the Maryland Club, Baltimore, in honor of Dr. William Osler, at which Dr. Osler was presented with the Dictionary of Natural Biography in sixty-five volumes, a work which he had long desired.

The Canadian Journal of Medicine and Surgery

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NO. 2.

Editorials.

CANCER STATISTICS AND SOME SPECULATIONS ABOUT THE CAUSE OF CANCER.

FROM statistics published in the report of the State Board of Health of New Jersey for 1902, it is evident that the cancer mortality of that State is attracting the attention of sanitarians. The writer says: "In New Jersey, the deaths from this disease during the past twenty-three years have exceeded in number those caused by typhoid fever, and they also have exceeded the combined num-

ber of deaths from scarlet fever, measles and smallpox." He also mentions that at present there is a prevailing belief to the effect that the increase in the number of reported cases of cancer is due to the increase of longevity. This last observation agrees with one made by the Registrar-General of Ontario in his annual reports for 1900 and 1901, in which an opinion was expressed that cancer is a disease of old age, and that the cancer mortality registered in Ontario is due to the great number of deaths among aged people. He further states that there were 1,094 deaths from cancer in Ontario, in 1901. Calculated on the basis of the total mortality of the Province from all causes for the year, viz., 29,608, there would be a cancer mortality in Ontario of 3.69 per cent.; or the population for that year being 2,184,144, the cancer mortality per 100,000 living persons would be 50.08. Through the courtesy of Mr. A. Blue, Commissioner of the Fourth Census of Canada, 1901, we are enabled to present the subjoined cancer statistics for a portion of the Dominion only, as the revision for Ontario and Quebec will not be completed till September next. The Bertillon system of enumeration has been used:

Provinces.	Population, 1901.	Total deaths from cancer and other malignant tumors, 1901.	Deaths from all causes, 1901.
British Columbia	178,657	54	1,748
Manitoba	255,211	72	3,117
New Brunswick	331,120	139	3,820
Nova Scotia	459,574	237	5,337
Prince Edward Island...	103,259	44	1,187
N. W. Territories	158,940	25	1,891
	1,486,761	571 =	17,100 =
		38.40 per 100,000 living persons.	11.50 per 1,000 living persons.

These Canadian cancer statistics may be compared with the following mortality rates for cancer, per 100,000 living at all ages: German Empire (1899), 72.7; England and Wales (1900), 82.8; Scotland (1899), 81; Ireland (1901), 65; United States (1900), 38.6.

Statistics of world-wide interest in connection with cancer have been compiled by Dr. A. Wolff, of London, England, and have appeared in successive numbers of the *British Medical Journal* (April 18th to May 16th, inclusive). * The conclusions of a positive character, which appear to result from this extensive inquiry, are:

(1) That certain races are especially prone to cancer, more particularly the Scandinavian and the different branches of the Germanic family.

(2) That cancer is more prevalent in districts in which beer is the staple drink, and the excess is in some degree proportionate to the amount consumed per head.

(3) That cancer tends to cause excessive mortality in regions abounding in water, but to a much more marked extent when these are covered with woods or forests. The mortality is also usually high along the valleys of rivers flowing from such districts.

(4) That the regional distribution of cancer indicates the probability that the disease is due to a specific cause.

The conditions specified by Dr. Wolff open up definite fields for further inquiry, particularly as to the influence of race or beer in the genesis of cancer. Is there a hereditary tendency in the Scandinavian and German towards cancer? Is the inordinate consumption of beer the sole cause, or are both causes, heredity and beer, co-operative in producing the large cancer mortality observed in these races?

As indicative of a tendency on the part of certain observers to trace cancer to a dietetic cause, it may be mentioned that Captain E. R. Rost, I.M.S., Rangoon, attributes the rise in cancer mortality to an increased consumption of sugar in the form of sweetmeats and other delicacies of modern confectionery, and a corresponding diminution in the use of salt-preserved articles of diet. (*The Indian Lancet*, May 18th, 1903, p. 849.)

The influence of the forest-clad slopes of river valleys in increasing mortality from cancer seems as remote as race or diet, yet an apparent remoteness in this factor should not prevent scientists from looking to the soil as a possible source of cancer. Perhaps some parasite, as yet undiscovered, may be found to exist in well-wooded river valleys, and may prove to be the efficient cause of cancer. Some bacteriologist may yet do for cancer what Nicolaier has done for tetanus.

In the meantime research for the cause of cancer goes on in many laboratories. It will not suffice to ascribe the cancer mortality of a country to the degenerative effects of old age, for no age is exempt from the ravages of malignant disease.

Cancer of the cervix uteri has been frequently observed in women under thirty years of age, and sometimes so extensive as

to contraindicate operative interference. (*American Medicine*, June 20th, 1903, p. 1012.)

As it is extremely rare for a multiparous woman to suffer from cervical cancer unless she has been subjected to some operation or instrumental treatment, the prevention of cervical cancer would seem to depend on the early restoration of a lacerated cervix, whether it produces symptoms or not.

In *Progressive Medicine*, June, 1903, p. 140, John G. Clark quotes Israel, who says in relation to the etiology of the cancer cell from repeated irritations: "For example, a destruction of some of the epithelial cells upon a surface produces an increased activity of those remaining in order to replace the deficit. Through repeated insults, which result each time in proliferation of the epithelium, a condition is finally reached, in which, from the more or less prominent irritation, the cells take on an abnormal activity of growth. In this light carcinomata cannot be looked upon as infectious growths. They are rather the result of repeated epithelial insults, produced by chemical and mechanical means, and, perhaps, indeed, the irritative action of micro-organisms." Viewed from this point, the prevention of cancer, irrespective of race or habitat, would seem to depend on the removal of irritation (chemical, mechanical and bacterial), together with the *restitutio ad integrum* of an injured tissue or organ, wherever the lesion may be found, and as soon as it is possible to recognize it. J. J. C.

AN OVERCROWDED PROFESSION.

NOTES of warning keep pouring in from the great European countries, indicating that the medical profession is overcrowded. Lately a young physician was caught in the act of stealing goods from a novelty store in Paris. When brought before the police magistrate the culprit pleaded that he was literally starving, and had committed theft to provide himself with the wherewithal to buy food. On this text *Le Temps* reads a lesson to the numberless young men who frequent the educational institutions of France—telling them that the overcrowding in the professions cannot be better illustrated than by the example of this unfortunate physician.

The saturation point in the liberal professions has been reached in France long ago. That country has too many lawyers, too many doctors, too many professors, and she does not know what to do with those turned out by the universities every year.

To quote the *ipsissima verba* of *Le Temps*: "France wants merchants, manufacturers, farmers and colonists, but does not want doctors. She has more doctors than she wants. To struggle against these facts is sure to lead to shipwreck."

This is a rather dark prognostic for the medical students of France. Yet when looked at from the standpoint of Ontario medical statistics the proportion of doctors to population in France does not seem great. In Ontario there are 11.4 doctors per 10,000, and at Toronto there are 20.06 per 10,000. In Paris there are 2,892 doctors for a population of 2,714,068, or 10.65 per 10,000.

French cities ranging from 492,000 to 100,000 population, the combined populations of which amount to 2,636,032, have 1,857 doctors, or 7.4 per 10,000. Cities ranging from 100,000 to 30,000, with combined populations equal to that of Paris, have 1,487 doctors, or 5.47 per 10,000. In the rural districts of France doctors are few and far between, numbering scarcely 3 per 10,000. It may well be, therefore, that if the ambitious French graduate had been willing to put up with a poor practice among the peasants, he would not have been forced to resort to larceny in order to keep body and soul together in the gay capital. Be that as it may, the lesson read by *Le Temps* is true, and no young man should think of devoting himself to a medical career in France unless he has private means, or can earn a living at something else, to eke out the small gains of his practice.

In England the prospect is no better. During the last twenty years the public health in that country has greatly improved, owing to causes quite unconnected with the number of physicians. The annual death rate of England per 1,000, in 1871, was 22.6; in 1880, it was 20.5; in 1890, it was 19.5; in 1900, it was 18.2. And yet the proportion of doctors to the medical work required is increasing instead of diminishing. Thus in 1871, there were 29 doctors to 1,000 deaths; in 1880, there were 29; in 1890, there were 35; in 1900, there were 41. In other words, taking total annual deaths as roughly proportional to total annual medical work, if the average annual income of a doctor in England was

\$2,050 in 1880, in 1900 it would have fallen to \$1,450. Dr. Gordon, who publishes these statistics in the *British Medical Journal*, May 16th, 1903, p. 1152, goes on to show that the mortality among English physicians is higher than among the members of the other professions. The death rate from nervous diseases among them is excessive and increasing, although alcoholism is insufficient to account for this, and is decreasing. *The death rate from suicide is enormous and is notably increasing.* In the 1890-92 period suicide among medical men in England was to suicide among occupied males generally as 41 to 14. To remedy the congested state of the profession the British Medical Association suggests: (1) That it is undesirable that any one should be registered as a medical student, unless he or she has attained the age of 17; (2) that the standard of the examination in preliminary general education required by the General Medical Council should be suitable for candidates of 17 years of age, and not lower than that required at present for the Oxford or Cambridge senior local examinations; (3) that the examination should include a pass and an honours division, as in the university local examinations, the subjects for the pass to comprise at least Latin, mathematics (comprising arithmetic, algebra and geometry), English grammar, literature and essay writing, history, geography, and either French or German; the honours division to include Greek and physical science, as compulsory subjects; (4) that the present system of multiple examining boards is most undesirable, and that it is essential, in order to secure uniformity of standard, that the medical Acts should be amended, so that the General Medical Council should be empowered to appoint a single examining board, which should hold its examinations as often as necessary at multiple centres, simultaneously.

These suggestions are valuable, and if regulations founded on them were enforced, the number of medical students in England would be reduced, but, even so, a slight reduction would not accomplish what is required. If the real object aimed at is to so lessen the number of medical students in England, that there will be a decent living for medical men in that country, the simplest plan would be to require that every candidate applying for a license to practise shall have a B.A. degree from some approved university. There would then be no doubt as to the educational qualifications of medical students, and

fewer candidates would be induced to enter a profession, which at the present time, does not wear a very inviting aspect to a highly educated man.

J. J. C.

THE RETIREMENT OF DEAN GEIKIE.

A CONTEMPORARY, in writing of university appointments, awhile ago, said: "College professors seldom die and never resign." So evenly has the tide of affairs in the universities of Toronto ebbed and flowed, that when even a venerable teacher sees fit to withdraw from what has been an average life-time of earnest, splendid service to his college, and a never-dying example of sturdy manhood and keen unswerving application of good sense and high mental attainments, all dedicated to his office of Dean of Trinity Medical College, it causes more than a ripple of regret, while at the same time it leaves an opportunity for his mantle to fall upon the shoulders of another. Dr. Geikie was founder, and for twenty years Dean of Trinity College Medical Faculty. Earlier in life he was a professor in the old Rolph Medical School; so for over forty years he has been a medical teacher in Toronto, and knows his work from its alpha to its omega. Father-like, he loves his child, Trinity Medical College, and now, with the current of the times, and the tendency to amalgamation in all circles, business, educational, and even religious, the child of his heart and care through all these thirty years has reached out and formed an amalgamation with Toronto University, and so, with enlarged resources and better equipments, and a strong teaching body, elected from both institutions, presses on keeping pace with this rapidly advancing age of high and ever higher achievements. We feel sure we are voicing the feelings of every Canadian medical practitioner when we say we are heartily sorry that splendid old Dean Geikie feels, owing to this amalgamation, that he must withdraw from further active work. He has our admiration and respect; he will be missed, for in educational affairs, as well as in business pursuits, we need the men of experience, who can look back as well as forward, and who can close one eye in retrospection, applying the old-fashioned test of ripe judgment to ascertain, when occasion requires, if the proposed action answers to the plumb-line.

W. A. Y.

EDITORIAL NOTES.

Cremation in Europe and the United States.—From the report of the Association for the Propagation of Cremation, which held its twenty-second general annual meeting June 6th, 1903, at Paris, under the presidency of Dr. Bourneville, we learn that there are at present eighty-four crematories in operation in Europe and America. Of these twenty-eight are situated in the following Italian cities: Milan, Lodi, Rome, Cremona, Brescia, Padua, Udine, Varesa, Spezzia, Novara, Florence, Livorno, Asti, Pia, Alexandria, Como, Turin, Mantua, San Remo, Verona, Bologna, Modena, Venice, Spoleto, Perugia, Sienna, Bra and Ferrara. It is interesting to note that at Milan the Catholic clergy, more accommodating than the French clergy, consent to accompany the body of a deceased person to the cemetery where cremation is performed. The twenty-six crematories of the United States are situated in large cities, such as New York, Chicago, St. Louis, Buffalo, Cincinnati, etc. Five new ones have been opened this year. In England there are nine crematories. The most noted and the oldest of these is the Woking crematory, in which 275 bodies have been cremated. A new one was opened November 22nd, 1902, in London. It is expected that this building will help to popularize the practice of cremation in London, the Woking crematory being inconvenient, as it is situated about thirty miles from the metropolis. Cremation is forbidden in Prussia, Saxony, Bavaria, and Wurttemberg. In Berlin, however, there is a columbarium in which the ashes of cremated persons are laid. The number of cremations in the German Empire is increasing. In Switzerland there are crematories at Zurich, Bale, Geneva, and Saint Gall. At Copenhagen, Denmark, the number of crematories keeps constantly increasing. There is a handsomely-equipped crematory at Montreal, Canada. In Holland, Austro-Hungary and Russia cremation is forbidden.

Vaginal Hysterectomy for Acute Puerperal Infection.—Dr. Deletrez, of Brussels, reports to the Belgian Surgical Society a case in which vaginal hysterectomy was done to save the life of a patient, who, after miscarriage at the fourth month, had acute

puerperal infection from retained placenta. The patient's illness began on the evening of March 20th, 1903, and she was brought to the hospital on the following day. Immediately after her arrival the os uteri was dilated, and a large portion of the placenta removed. Lavage and intra-uterine tamponment were also employed. On the six ensuing days the blunt uterine curette was employed. The placental fragments were odorless at first, but became fouler from day to day, and on March 26th exhaled a gangrenous smell. A microscopic examination of the uterine secretions having revealed the presence of streptococci, 100 c.c. of antistreptococcic serum were injected March 26th, and a similar quantity March 27th. At four p.m. March 27th, the patient had a severe chill, followed by fainting, her temperature went up to 106 5-10, and her pulse to 130-140; delirium supervened, and her face assumed a pinched expression. As a last resource vaginal hysterectomy was done at five p.m. The operation, which was easily performed, being completed in less than ten minutes, was immediately followed by a subcutaneous injection of 2,500 grams of the physiological salt solution. At ten p.m. the same evening the temperature fell to 98 3-5, and her pulse to 120. On the 28th the temperature rose to 102 1-5, and on the 29th fell to 100 2-5. On March 30th, the third day after the operation, it became normal. The patient did well, and was able to leave the hospital April 9th. The uterus measured about 12 centimeters ($4\frac{3}{4}$ in.), and presented at its left horn an infundibulum, in which there was a pretty large fragment of placenta in a gangrenous condition, so closely adherent to the uterine mucosa that it could not be separated from it without tearing the uterine tissue. The remainder of the uterine mucosa was quite smooth and presented no lesion.

In Favor of a Necropsy.—In a case of sudden death from accident or violence, even when an individual has been killed instantly, a physician called to examine the dead body may not be able to find a lesion sufficient to account for death. A medico-legal examination should be held in such a case in order to estimate how much the death was due to the accident or violence, and how much to the physical condition of the deceased. A *post-mortem* examination of the body may show that death resulted from natural causes, and not from traumatism. Thus Dr. Socquet reported the following to the Medico-legal Society of Paris:

An old man was killed instantly as the result of a carriage accident. The physician called to examine the body of the deceased, not finding a lesion sufficient to explain the cause of death, demanded a necropsy. This was granted, and, when the body was opened thirty hours after death, no trace of traumatism was found in any organ; on the other hand, however, a large, soft, fluctuating tumor of the left kidney was found, which, when punctured, discharged $7\frac{1}{2}$ litres of uniform, inodorous pus. In this case death was not due to traumatism.

Pruritus and Cancer.—The functional affection, pruritus, may arise without obvious cause, as the pruritus senilis observed in the old and the pruritus hiemalis, which develops on the approach of cold weather, and disappears when the weather becomes warm. Pruritus may also be symptomatic of gout, diabetes, Bright's disease, neurasthenia and hysteria. Dr. Wickham reports to the Society of Syphilography and Dermatology of Paris, June 6th, that in four cases of pruritus or prurigo, for which he had been consulted, he found visceral cancers. Abdominal carcinoma, and particularly cancer of the stomach may cause intense and persistent pruritus. This sign, which, according to Dr. Wickham, is but little known, is of great importance, as it may appear long before the common early signs of cancer, and may thus reveal its presence.

Adrenalin as a Hemostatic in Hypertrophied Prostate and Urethral Stricture.—Dr. Gottschalk, Paris, states that in hypertrophy of the prostate a urethral injection of 2 cubic centimeters (m. 34), of the 1-1,000 solution of adrenalin enables the patient to urinate spontaneously, even in a case of complete retention. In a very tight stricture of the urethra, the previous injection of a few drops of the same solution into the urethra enables a surgeon to pass a catheter, owing to the lessened congestion of the mucous membrane of the urethra produced by the adrenalin. Prof. Frisch, of Vienna, finds adrenalin useful in preventing hemorrhage when using the cystoscope in bladders which bleed easily. He uses a solution of 1-10,000, of which he leaves 3 or 4 ounces in the bladder for a few minutes.

J. J. C.

PERSONALS.

DR. F. N. G. STARR spent ten days of last month on the Georgian Bay.

DR. J. W. LESSLIE, of St. Patrick Street, returned from England on the 11th ult.

DR. D. W. MCPHERSON has removed from Carlton Street to 556 Bathurst Street.

DR. WILMOT A. GRAHAM has been appointed house surgeon to the Toronto Western Hospital.

DR. R. D. RUDOLF left two weeks ago for Germany. He will return *via* England in September.

DR. FIERHELLER, of Markham, Ont., has moved into the city, and has taken up house at 535 Sherbourne Street.

DR. AND MRS. BAKER, of Cannington, spent a week with Dr. and Mrs. Fierheller, at 535 Sherbourne Street, last month.

DR. J. M. MACCALLUM will assume the responsibility of a benedict this fall. Hearty congratulations, Mac. It's time, you know.

DR. W. B. THISTLE has been confined to the house for some little time now with gastro enteritis, and is under the care of Dr. R. J. WILSON.

DR. AND MRS. MURRAY MCFARLANE left July 17th for a six weeks' trip to Muskoka, Lake Nipissing, and Lake George, in the Adirondack Mountains.

DR. VAUX, Dr. L. Vaux and the Misses Vaux were guests during July of Mrs. W. E. Sanford, of Hamilton, who is spending the summer at "Wesanford," Muskoka.

WE regret to announce the illness from typhoid fever of Dr. H. B. Anderson. The doctor is confined at Toronto General Hospital, and we hope will soon be convalescent.

DR. R. A. STEVENSON, of Bloor Street, left for England on the 16th ult., sailing by the *SS. Canada* from Montreal. He will return about the beginning of September.

DR. GEO. T. McKEOUGH, of Chatham, left on the 17th of July for Germany, where he will spend the next four or five weeks.

DR. W. J. NEILSON, member for North Winnipeg in the last Manitoba Legislature, died July 17th, after an illness extending over several months. He was born in Perth, Ont., in 1854.

CONGRATULATIONS are in order to our co-editor, Dr. George Elliott, of 129 John Street, who became the father of a bouncing boy on the 11th ult., increasing his family circle to no less than three.

DR. F. N. G. STARR moved into his new residence, 112 College Street, on July 2nd. The doctor is to be congratulated upon securing one of the handsomest and most substantially built houses in Toronto.

DRS. Alex. McPhedran, R. A. Reeve, I. H. Cameron and D. K. Smith spent the month of July in the Old Country, and are expected home any day now, with the exception of Dr. D. K. Smith, who will not return for another month.

DR. G. C. DRAESEKE, of Dundas, lately house surgeon at the Western Hospital, and a graduate of the University of Toronto, has been appointed surgeon on the C. P. steamer *Empress of China*. He left on the 2nd ult. to assume his new duties.

DR. WM. A. CRESWELL, silver medalist of class '01, of Toronto Medical School, has been appointed on the house staff of the Toronto General Hospital. Dr. Creswell has just returned from the Old Country, where he has been pursuing post-graduate work for the past two years. While abroad he obtained the degrees of L.R.C.P. and M.R.C.S.

THE Canadian Pacific Railroad are offering every inducement to doctors who will be in attendance at the Canadian Medical Association at London, Ont., from the 24th to the 28th inst. to travel by that road. In case of 300 or more making the trip, delegates and members will be returned home free of charge, or if 50 or more, and less than 300 are present, return trip will cost but one-third. As will be noticed on another page of this issue, the usual arrangements as to obtaining a standard certificate from the agent on starting will be in force, so that we would advise all members to take this necessary precaution on leaving home.

News of the Month.

CANADIAN MEDICAL ASSOCIATION MEETING, LONDON,
AUGUST 25-28.

PRELIMINARY PROGRAMME.

President's Address. W. H. Morehouse, London.

Address in Medicine. Jas. Stewart, Montreal.

Address in Surgery. Alex. Hugh Ferguson, Chicago.

Address in Gynecology. Matthew D. Main, Buffalo.

"The Treatment of the Inebriate." A. M. Rosebrugh, Toronto.

Paper (title to be announced). Perry G. Goldsmith, Belleville.

"Total Ablation by Bisecting the Uterus." T. Shaw Webster, Toronto.

"Inguinal Hernia of an Undeveloped Uterus and Appendages, with Presentation of Specimen." R. Ferguson, London.

Paper (title to be announced). A. Laphorn Smith, Montreal.

"Report of Two Cases of Hour-Glass Contraction of Stomach." Henry Howitt, Guelph.

"Cardiac Affections in Influenza." E. G. Wood, Nashville.

"Amyotrophic Lateral Sclerosis." A. McPhedran, Toronto.

"Orthopedic Surgery at the Present Time." C. W. Wilson, Montreal.

"Internal Medication for Direct Remedial Effect." George M. Aylesworth, Collingwood.

"The Role of Eye-Strain in Civilization and Medicine." George M. Gould, Philadelphia.

"The Inter-Relations of Diabetes and other Constitutional States." George F. Butler, Alma, Mich.

"Gun-shot Wound of the Upper Arm, with Non-Union of Humerus, and Destruction of Musculo-Spinal Nerve—Operation six months later—Recovery." Hadley Williams, London.

"Discussion on the Treatment of Typhoid Fever." W. P. Cavan, Toronto; J. Herald, Kingston; W. B. Thistle, Toronto; H. A. McCallum, London.

"Discussion on the Diagnosis Treatment of Tuberculous Peritonitis." A. B. Atherton, Fredericton, N.B.; A. Groves, Fergus; Herbert A. Bruce, Toronto, and L. Coyteux Prevost, Ottawa.

"The Technique of Gastro-Enterostomy." Theodore A. McGraw, Detroit.

"The Relation between the General Practitioner and the Specialist in regard to Intra-nasal Work." J. Price-Brown, Toronto.

"Personal Experiences with Alexander's Operation." H. Meek, London.

"Auto-Infection." E. Hornibrook, Cherokee, Iowa.

"The Country Doctor." J. S. Sprague, Stirling.

"A Lantern Lecture on Open-air Life in the Treatment of Pulmonary Tuberculosis." J. H. Elliott, Gravenhurst.

"The Size of the Pupil as an Aid to Diagnosis." J. T. Duncan, Toronto.

"Thrombosis of the Femoral Vein following Aseptic Laparotomy." E. R. Secord, Brantford.

"Gastro-Enterostomy with Report of Cases." Ingersoll Olmsted, Hamilton.

"Radical Cure of Hernia." A. Groves, Fergus.

"The Decline and Fall of Atropine." G. Sterling Ryerson, Toronto.

"The Medical Treatment of Diseases of the Nose and Throat." John Hunter, Toronto.

"An Interesting Case." G. Herbert Burnham, Toronto.

"Concealed Accidental Hemorrhage." Adam H. Wright, Toronto.

"The Surgical Treatment of Bunions, by Tubby's Operation." James Newell, Watford, Ont.

RAILWAY TRANSPORTATION.

Intending delegates to the thirty-sixth annual meeting of the Canadian Medical Association, which will be held at London, Ont., on the 25th to the 28th of August, should take careful note of the following instructions as regards transportation rates. As a good many wrote to the General Secretary last year for forms to fill in, it might be well to state that no such forms are required. All a delegate has to do is to purchase a single first-class ticket to London, at the same time asking the agent at starting point for a *Standard Convention Certificate*. These certificates, when signed by the General Secretary, will entitle holders thereof to return fare free, providing there are 300 or more at the meeting holding *Standard Convention Certificates*. These arrangements apply as well to the wives and daughters of physicians.

Maritime Provinces.—Delegates travelling to London on the Standard Certificate plan *via* the Intercolonial Railway to Montreal will be given return fare free from Montreal east, provided that there are ten or more delegates in attendance at the meeting holding said certificates.

Manitoba and the Territories.—From Manitoba and the Canadian North-West, one-way tickets to be purchased to London, and Standard Certificate being secured at the time of purchase, these certificates, when presented at London, duly signed by the General Secretary, will entitle the holder thereof to be returned free, if 300 or more paying railroad fare are in attendance. If less than 300, and more than 50, the same arrangements as for Ontario and Quebec, viz., one-third fare return will be in vogue. Tickets purchased west of Port Arthur, purchased in time to reach London for the Convention, will be accepted for return up to and including September 15th. Delegates taking the Superior and Huron Lake route one way will on presentation of certificates be charged \$4.25 extra. If Lake route is used both ways the charge will be \$8.50 extra.

British Columbia.—The Canadian Pacific Railway officials at Winnipeg have not been able to make arrangements for British Columbia up to the present time. Announcements of these will be made in the daily papers of Vancouver and Victoria, if secured, some time during the first week in August.

ENTERTAINMENT.

The Entertainment Committee at London proposes to entertain visiting delegates somewhat as follows:

On Wednesday afternoon a reception will be held at the Kennels for the visiting ladies by the ladies of London. On the same afternoon at about 4 p.m. the members of the Association will be entertained at Springbank, London's pleasure resort. Leaving Springbank at about 5.30 p.m., the delegates will be taken to the London Asylum grounds, where they will be entertained by the Provincial Government for the balance of the evening. On Thursday, through the kindness of Messrs. Parke, Davis & Company, the Entertainment Committee have provided for an excursion to the celebrated laboratories of the extensive pharmaceutical house at Walkerville and Detroit. Arrangements have been made for a special vestibuled train to leave London at 8 a.m. sharp, Thursday. Walkerville will be reached at about 10.30 a.m., and the visit will be made to the Walkerville laboratories. The delegates will then be taken for a trip up the river, luncheon to be served on board. They will be landed at Messrs. Parke, Davis & Co.'s own dock, at the Detroit laboratory, for the inspection of their Scientific Building at about 2.30. At the conclusion of this inspection other arrangements will be made for the entertainment of the members until 6.30 p.m., when a banquet will be tendered to the members of the Canadian Medical Association at the Russell House, Detroit, by Messrs. Parke, Davis & Co. Between 9.30 p.m. and 10.30 p.m. the physicians will be taken to the Brush Street depot, Detroit, and returned to London by a special train.

HOTEL ACCOMMODATION, ETC.

During the coming meeting of the Canadian Medical Association in London the several large hotels will be able to accommodate most of the visiting members, and in addition to this the Reception Committee having charge of receiving the visiting delegates will have lists of good boarding-houses where those wishing them may have rooms. The Reception Committee at London hopes that no one will stay away fearing lack of accommodation, as the London medical men will do their utmost to make their stay agreeable. Dr. J. S. Niven, 423 Colborne Street, who is chairman of the Reception Committee, will be pleased to secure rooms for anyone writing for them in advance. Anyone desiring any further information should address either the local Secretary, Dr. Hadley Williams, Park Avenue, London, or the General Secretary, Dr. Geo. Elliott, 129 John Street, Toronto.

THE NEW BATTLE CREEK SANITARIUM.

SURELY the wonderful house that Jack built, the descriptions of which made entrancing the hour between daylight and darkness of the yesterday of childhood, quite pales into the reality of this twentieth century of inventive genius in the art of building and architecture.

The new Battle Creek Sanitarium which, Phoenix-like, has arisen out of the ashes of the old, destroyed by fire February 18th, 1902, is replete with every new improvement that pertains to health and comfort, and is luxurious as to furnishings and appointments. During its rebuilding several extended visits to Europe were made by its managers for the purpose of studying the work and experience of others. The methods of administering baths, massage and similar modes of treatment have been studied under specialists in all the leading countries of Europe, from Stockholm to Naples, and in special lines investigations have been extended even to the Orient. In style, the main building is of the Italian renaissance, situated in a beautiful garden, which broadens into very extensive grounds.

The main building is 525 feet in length, exclusive of the porches, and forty-six feet in width, the width being increased at either end and in the centre to fifty-eight feet. It is five stories in height, with a ten-foot basement, and a roof storey of lighter construction and somewhat less width, occupying nearly the whole length of the building.

The treatment buildings are each 150 feet in length, sixty-six feet in width, and three stories in height above the basement. The gymnasium is 120 feet in length, and nearly the same height as the treatment buildings. The combined length of all the

structures is very nearly the same as that of the old buildings, the average height somewhat less, and the width a little greater.

The total area of porches and verandas is over thirty-two thousand square feet, or about one and one-fourth acres, affording standing-room for more than fifteen thousand people, and furnishing ample room for more than a thousand couches, accommodating as many patients with air and light baths. This calculation includes the roof garden, one of the most practical and attractive features of the institution, located at the south end of the sixth storey, and beautified in the summer season by palms, flowers, and foliage plants.

North of the roof garden, and adjoining the dining-room, is the spacious solarium, which, in addition to numerous long windows on the sides, is provided with an enormous skylight, through which the sunlight pours down, to the great benefit of those whose extreme feebleness compels them to take their daily light baths indoors.

The dining-room proper, extending from the serving-room to the solarium, is 170 feet in length and fifty feet in width. To this length should be added that of the solarium, which may be used when needed, giving a total length of 220 feet, and an area of 11,000 square feet, or a little more than one-fourth of an acre.

The surgical operating-rooms are separated from the culinary department by solid walls, with no communicating openings. The operating-room is spacious and high, provided with a mammoth skylight and ample sidelight as well as artificial lights. It is flanked on either side with anesthetic rooms, bandaging-rooms, a preparation-room, and other necessary apartments, including an emergency room. Here is ample room for surgical stores and supplies of all sorts, and every appliance pertaining to a thoroughly equipped modern operating-room.

The walls are finished with white cement, which is polished as smooth as glass, and is almost as hard as stone. The floor is of marble mosaic. Everything is non-absorbent and easily kept free from dust and germs.

The two bath buildings are identical in size, appearance, and arrangement. The south side of the basement of each building is devoted to lavatories, special douches, and other treatment requiring toilet arrangements. Special ventilation has been provided for these rooms. Rooms for nurses' supplies and some class rooms are also found in the basement. The east end of each basement is cut off for a swimming pool thirty feet wide and sixty feet in length, the pool running crosswise of the building.

By a special and unique arrangement, light and air are admitted to every part of the extensive bath and treatment apartments. This is accomplished by means of a light shaft, nine feet

wide, and extending nearly the entire length of the bath building, reaching from the first floor to the roof.

The various forms of electric light baths in use in this department are a unique and original feature of the Battle Creek Sanitarium. It is here that these baths were invented and first used. Thousands are now in use in this country and in Europe.

In the basement of the gymnasium is found machinery for the application of mechanical Swedish movements. Many of these machines used in the institution are extensively manufactured in the sanitarium machine shops, which are constantly employed in work of this sort for the benefit of the sanitarium and its branches. Of these machines may be mentioned vibrators, kneaders, shakers, breathing machines, mechanical trainers and manipulators, and various ingeniously contrived mechanisms for encouraging feeble hearts, weak lungs, and slow stomachs to healthful activity.

THE FIRM OF HOWARDS & SONS, STRATFORD, LONDON.

THE following facts as to one of the very oldest manufacturing pharmaceutical firms in the Old Country will be interesting, and we don't think that it will be out of place to present them to our readers:

The present firm consists of three of the grandsons and two great-grandsons of the founder, Luke Howard; Colonel Howard, C.B., D.L., J.P., Alderman Essex County Council, having retired from the firm at the end of 1897. The remaining partners are William Dillworth Howard, F.I.C., the eldest son of John Eliot Howard, who studied chemistry under Dr. Williamson, at the Birkbeck laboratories of the University College, Gower Street; David Howard, D.L., ex-Vice-President of the Chemical Society, ex-President, and now Vice-President of the Society of Chemical Industry, and Treasurer of the Institute of Chemistry, who studied chemistry under Dr. Hofmann at the Royal College of Chemistry in Oxford Street, author of various papers on the Cinchona Alkaloids; and Theodore Howard, both sons of Robert Howard; Alfred Gravely Howard, F.L.S., F.C.S., eldest son of Joseph Howard, M.P., and David Lloyd Howard, F.C.S., son of David Howard, who both studied chemistry at the Birkbeck laboratories. It has always been the rule of the firm that principals themselves should superintend the details of the working of the business. Organization may do much to reduce the working of a factory to a system, but at any rate where a very great variety of products are turned out, and where fresh work has continually to be undertaken, it is impossible to keep too close a connection between the heads and the practical workers. In order to carry this out completely, members of the firm have in their younger days themselves worked in

the factory; for the practical application of theory to practice requires, if it is to be successfully carried out, the personal experience of both.

The works now comprise not only the original buildings of a hundred years ago, but the adjacent buildings on the property of the City and Merchant Taylors Company at the City Mills, and other buildings erected on ground belonging to the firm adjoining the City Mills. Thanks to the considerable area available, it is possible to carry on a very large proportion of the work in one-storey buildings, and to isolate them in a way impossible in a more crowded neighborhood. It is thus possible not only to diminish very greatly the risk from fire—no small consideration in a chemical factory where inflammable materials must be used—but also to manufacture poisonous substances in separate buildings, and never to allow them to be in the same place as other goods till they are packed and ready to send out. The area of the buildings thus employed is about three acres, spread over five and a half acres of ground, and in addition there are a number of dwelling-houses occupied by the employees of the firm; adjoining this block of buildings is a piece of marsh-land, which is gradually being filled up with the waste from the various processes carried on—a process that will ultimately render it a valuable site for building. The works are situated on one of the many branches of the Lea, which used to supply ample power for the water-mill, from which the name of City Mills is derived, and which formerly was of great value also as affording an unfailing supply of pure water and enabling barges to bring up goods from the docks to the wharves which surround the works.

Unfortunately these conveniences are now ancient history: the East London Water Company has appropriated the water of the Lea Valley, except in times of floods, when Stratford has a great deal too much. Happily artesian wells afford a constant supply of excellent water drawn from the chalk at a depth of 250 feet, and what would otherwise be a very serious evil is thus avoided. The Great Eastern Railway runs at the side of the premises, and a siding replaces the water carriage, which has become so costly, owing to the rise in lighterage charges, that it is avoided if possible.

In addition to the Stratford business the firm also continue that of their old friends, Messrs. Hopkin & Williams, at Cross Street, Hatton Garden, and Wandsworth, carrying on the manufacture of fine chemicals for which the late Mr. Williams was so justly celebrated.

THE MEDICAL COUNCIL.

THE *News*, Toronto, in referring to the recent session of the Ontario College of Physicians and Surgeons, stated that that body is to be congratulated on having met a situation of difficulty with dignity and sense. This situation, it is true, was not one of its own creation, or, rather it was the creation of the last Council, for the present body received its mandate of existence only last fall, when the representatives of the various bodies constituting it were elected. That Council, with both rashness and haste, passed a regulation for matriculation, which, on its most obvious interpretation, would have practically closed the door of the medical profession in this Province to all but the sons of the wealthy.

That the old Council did not intend this, whatever a few of the members had in view, may be at once conceded, but it only serves to bring out quite clearly the fact that a rash step on a most important matter was being taken without due consideration of its import, and it gave color to the charge that the members, who were all seeking re-election, wished only to present a showy record to their constituents. The proposed matriculation had to be greatly modified, and the curriculum eventually demanded by the Executive Committee, of course, fell far short of the original demand. At the recent meeting this decision came up for review, and, of course, was severely criticised by the "last ditch" members, but the moderation and good sense of the Council, once again supreme, brought about by a large majority the endorsement of the action of the Executive Committee. It further adopted the proposal to refer the whole question of matriculation to a small select committee, which is to report on the subject next year. This will ensure full consideration of a difficult matter.

On other points there is evidence of the desire of the Council to meet a modern situation in an enlightened and open-minded manner. The curriculum has undergone revision, and, while it is not in every detail satisfactory, it is now much more in the line of progress than it was. For the first time, also, the Council has adopted measures which permit the various medical teaching institutions to exercise their own discretion in determining the time which is to be allotted to instruction in a subject of the curriculum, a point that ought to have always been within the sphere of the teaching organizations. The business of the Council is to find out whether a candidate for registration as a practitioner of medicine in this Province possesses the requisite knowledge, and a curriculum to that end is necessary, but beyond the number of years and months to be devoted to each subject, the Council should not in the past have gone, for its exaction of a stipulated number of hours of instruction in each subject meant that every teaching in-

stitution had, in the minutest details, to conform to the standard of the Council. This practically denied all independence to teaching staffs, whose experience in this line ought to be the only factor in determining, within certain limits, the amount of instruction to be given in each subject. That the customary attitude of the Council on this point is abandoned is of great significance, for it will help very considerably in the project, now almost consummated, of building up one great Medical Faculty in Toronto.

Taken altogether, then, the action of the Council has been prudent, and it will no doubt serve to win back what was lost by the action of last year. And this is a matter for satisfaction, not alone to the profession, for the Council is the servant of the public, but it only serves the latter when it acts wisely.

TUBERCULOSIS AT THE ST. LOUIS EXPOSITION OF 1904.

THE management has sent out the following notice to all the members and delegates, named by the Governors of States and by State Medical Associations and other bodies interested in the prevention of tuberculosis:

NEW YORK, July 14th, 1903.

Dear Colleague.—At a meeting of the Council of the American Congress on Tuberculosis, a resolution was adopted, unanimously fixing the annual dues of the Congress of 1903 at the normal sum of \$1.00, from June 4th, 1902, to June 10th, 1903.

The Treasurer was ordered to send out bills for the annual dues to every enrolled member of the Congress of 1902. If you wish to remain a member of the Congress of 1903, please remit your dues, \$1.00, and your name will be entered on the roll of members of the Congress of 1903. Those who prefer not to be so enrolled, will advise the undersigned or the Secretary.

You are also reminded that by action of the council accepting the offer of the *Medico-Legal Journal*, it was provided, that,

1. *The Medico-Legal Journal*, Vol. 21, commencing June number, 1903, will be sent to every member or delegate to the Congress of 1902, or to any new member, at half price, \$1.50, payable in advance.

2. That the *Medico-Legal Journal* will send, when it is completed, the Bulletin of the Congress of 1902 to every member or delegate not enrolled, nor a present subscriber, at half price, \$1.50, if paid in advance, which will include membership in the Congress of 1903, by action of the Council of the American Congress of 1903.

Respectfully yours,

CLARK BELL, *Treasurer.*

A similar notice has also been sent to boards of health, national,

State and municipal, inviting their members to co-operate and contribute papers to this congress; send titles to the officers, and to each body to send at least three delegates to the Congress.

The Congress of 1904 will be a great gathering, and it is hoped will do great good.

ITEMS OF INTEREST.

Surgeons at Grace.—Drs. R. W. Rutherford, Chatham, Ont.; C. A. Warren, and G. E. Wilson, of Toronto, have been appointed house surgeons to Grace Hospital for the year 1903-4.

Hospital Appointments.—The following appointments have been made at the Hospital for Sick Children, for the house or resident staff, for the year beginning 1st July: Drs. James Biggar, Toronto; W. Edward Gallie, Toronto; Allen W. Canfield, Woodstock, and R. A. Fraser, Toronto.

Polk's Medical Register.—The eighth revised edition of this well-known work is now under way, and will appear in due time. Send for descriptive circulars, and do not be deceived by imitators. Polk's Medical Register and Directory has been established sixteen years. R. L. Polk & Co, Publishers, Detroit, Mich.

St. Michael's Hospital Staff.—The following doctors have been appointed to the house staff of St. Michael's Hospital for the ensuing year: Dr. F. J. Doherty, of last year's staff, Dr. H. J. Sullivan and Dr. Baldwin. Drs. C. H. McKenna and Marlow have been appointed assistant surgeons, and Drs. E. B. Shuttleworth and M. M. Crawford added to the outdoor staff.

Hospital Day in Brantford.—July 7th was Hospital Day in Brantford. Young ladies, representing the auxiliary to the John H. Stratford Hospital, "manned" the street cars and collected the fares. All collections were in silver, no tickets being accepted. The proceeds of the day have been donated by the street railway officials to the Ladies' Auxiliary. The money will be spent in purchasing a new isolation ambulance for the city, and in providing flowers and delicacies for the sick at the hospital.

Deaths by Traction Companies in Chicago.—A bulletin just issued by the Census Department shows that the Chicago traction companies killed seventy-two persons in one year and injured over 1,800. "I do not doubt that we injured close to 1,800 persons in a year," said one of the Union Traction officials. "Last year our personal injury item was over \$600,000. I would say that over 50 per cent. of the injuries result from persons alighting and getting on our trains. If we operated but one closed car and did away with the trailer system entirely nearly all these injuries would be avoided."—*N. Y. World.*

Suicides Among Doctors.—Suicides are increasing remarkably among doctors in Great Britain. The reason is not far to seek, according to a statistician, who points out that the physician who might calculate on an income of more than £400 (\$2,000) a few years ago can count to-day in corresponding circumstances on only something above £200 (\$1,000). The causes of this depreciation of income are two, the first and more important being the improved health of the country at large, and the diminishing death rate. The medical profession, as a matter of fact, is working in these days of preventive medicine, towards its own extinction. The second cause is the multiplication of universities, which are turning out more doctors than there is a demand for.

The Canadian Field Hospital Doctors.—The regulations for hospital attendance, required of candidates for the Medical Council examinations, do not, it seems, cover service abroad with a field hospital corps. For this reason the following successful candidates at the Council examinations, who served with the Canadian Field Hospital Corps in South Africa, but whose names did not appear in the published lists of passed candidates, required to have their hospital attendance in South Africa sanctioned by the Council at their meeting last month. The names are: D. Macdougall King, M.B. (Toronto University); George C. Ferrier, M.B. (Queen's University); Fred. J. Morrow, M.B. (Western University), and James L. Biggar, M.B. (Toronto University). They are now full-fledged doctors, and entitled to practise their profession.

Consolidation of the "New York Medical Journal" and the "Philadelphia Medical Journal."—In union lies strength. These two influential medical journals have not only gained the strength of a reputable career as individualities, but, under the unification of the two, an added interest to the profession at large, and no doubt a wider subscription list, as many physicians find subscribing for numerous medical journals and books beyond their means. Personally, we are sorry of the change. It has been so long a pleasure and a privilege to open on Monday mornings our copy of the *New York Medical Journal*, and then take a look at what was doing in the Quaker City; but now we are going to find it all under one cover. We heartily wish the old friends, with the new composite face, the realization of their highest ideals, and continued success as a business enterprise.

W. A. Y.

Studying Malaria.—A Parliamentary paper, just issued, reviews the progress of the investigation into malaria and other tropical diseases which has been carried on in connection with the School of Tropical Medicines, opened in 1899, largely on the initiative of Colonial Secretary Chamberlain. The report shows that the school has hitherto just paid its way. Much valuable

teaching has been done, but Mr. Chamberlain anticipates that £12,000 will be required for increased accommodations. In 1901 the doctors went to India. At Bengal and in the Punjab they found, as in West Africa, that the native children have the parasites in their blood, and they must, therefore, be regarded as a source of infection. The doctors commenced their investigation of black-water fever in Central Africa, and then on the west coast of Africa and India. They concluded that the disease was essentially of malarial origin, and was not due to a different parasite.

New House Doctors at Toronto General Hospital.—The following graduates in medicine and members of the College of Physicians and Surgeons of Ontario have been appointed resident house surgeons at the Toronto General Hospital for the year 1903-1904: From Toronto University—W. A. Creswell, Bondhead; J. A. S. Graham, Toronto; W. T. McLaurin, Toronto; E. M. Walker, Toronto; A. B. Wright, Toronto; G. A. Winters, J. R. Parry, alternates. From Trinity University—Edgar Brandon, Cannington; R. W. Irving, Ingersoll; M. J. Harris, Glencoe; W. A. McCauley, Warkworth; H. Rundle, Emsdale; M. Cook, T. H. Bell, alternates. The following are the house staff, who have just completed their term, and are now retiring after their year's service, 1902-1903: Drs. J. D. Chisholm, Berlin; S. Johnston, Toronto; R. Neil Kyles, Camilla; W. H. Lowry, Guelph; J. A. McCollum, Toronto; R. H. Mullin, Hamilton; R. Parsons, Emery; A. B. Rutherford, Owen Sound; P. W. Saunders, Toronto; G. W. Ross, Toronto.

Dr. Hodgetts, Provincial Medical Inspector, Denies Misstatements as to Smallpox in Essex County.—In view of the misstatements which have recently appeared in the lay press, casting reflection on the medical men of portions of Essex County, Dr. Hodgetts, the Provincial Medical Inspector, states that during his recent inspection, he met with no cases which had been reported to the local health authorities as chickenpox, and which proved to be smallpox; and, further, there were only two families in quarantine in Anderdon Township, where the local board have been doing their best for some months to stamp out the disease. The difficulties in Malden Township had been increased by reason of the fact that chickenpox had been prevalent in some portions of the municipality about the beginning of the year, and since then some of these persons had developed smallpox. In other instances the disease being of a mild type, had not been treated by a medical man, and many of the residents doubted that the people were suffering from the more serious ailment. The physicians were in every case familiar with the disease, and were most anxious to assist the health authorities in carrying out the law.

Montreal's Physicians and Board of Health are to Co-operate in a War upon Tuberculosis.—The Board of Health of Montreal and the Montreal League for the Prevention of Tuberculosis have decided to act together in an attempt to check the spread of that disease. In order that they may the more readily combat the evil, 599 physicians in the city and suburbs have been requested to co-operate by voluntarily reporting the existence of cases of consumption which are sufficiently advanced to prove a menace to those who come casually in contact with them. With this knowledge in hand, an official placed at the disposal of the League by the city, will regularly visit the houses where these cases reside, to instruct both the patient and his entourage as to simple methods of cleanliness and disinfection, as well as to the disposal of sputum. Between three and four new cases of consumption are discovered every day. The League, it is understood, will very shortly be in a position to arrange for the care of those among the sufferers who, besides being indigent, are known to be hopelessly ill. In fact, an application has already been made to the Provincial Government for the lease of a tract of land in the St. Agathe region, to be used as a sanitarium.

Has Seen Many Lands.—Dr. J. F. Boyle, son of Mr. David Boyle, curator of the Ontario Educational Museum, has returned from a two years' trip round the world, and has brought with him many rare specimens of handiwork, relics, skins and horns from many countries. Dr. Boyle, when asked how the Canadian was received and considered abroad, said in Great Britain they were received with open arms, and in all other places where he had seen them the Canadian had an established reputation for honesty and sobriety. Dr. Boyle for some time was the surgeon aboard the troopship *Staffordshire*, which conveyed the Boer prisoners from Bermuda to South Africa, and states that the difficulty with most British professional men in foreign countries is their inclination to drink themselves drunk. At the "White Man's Grave," as Secondi, on the west coast of Africa is called, Dr. Boyle said he was offered £1,200 per year and supplies if he would remain there in the ship's service, and for one morning's work made \$350 looking after the duties of another physician whose good "Scotch" had incapacitated him for duty. Africa, he says, is overstocked with all manner of professions. Dr. Boyle has some interesting souvenirs from the Boer prisoners—a pair of boots and a couple of trick boxes made of teak wood and a jackknife are perfect. Specimens of Indian carving in the line of elephants, etc., are masterpieces.

An Interesting Feature in Connection with the Canadian Medical Association.—One of the most interesting features in

connection with the forthcoming meeting of the Canadian Medical Association, which is to be held in London, on August 25th to 28th, inclusive, is the proposed entertainment of the physicians in attendance by Messrs. Parke, Davis & Co., who have generously offered to relieve the local physicians of this important part of their work in connection with the meeting. It is the intention that the members of the Association shall leave London about 8.30 a.m. on August 27th, reaching Walkerville about 11 o'clock, when a visit will be paid to the Canadian laboratory, and subsequent to this a boat trip on the Detroit River and Lake St. Clair will be followed by a visit to the Detroit laboratory. After another short sail a banquet will wind up the day's outing, and it is expected that a special train will reach London on its return trip not later than 11.30 p.m. We strongly recommend the physicians who may be in attendance at this meeting to avail themselves of this excursion, for we know from former experiences that Parke, Davis & Co. never do things by halves, and we anticipate that Thursday, August 27th, 1903, will be a day long to be remembered by the members of the Association. We consider that this action on the part of Parke, Davis & Co. is a most liberal one, and feel sure that the proposed trip to Detroit will be one of the banner features of this year's convention.

New Hospital for Epileptics.—The Provincial Secretary's Department has had a great deal of work on hand recently. Inspectors Christie and Noxon, with Architect Heakes, of the Department of Public Works, have been at Woodstock to consider the best plan for laying out the grounds and for locating the buildings to be erected for the care of epileptics. The contracts for two cottages, the necessary offices and the power house will be let immediately, and work proceeded with. The power house will supply electric light and power, with steam for the laundry. Accommodation for one hundred patients will be provided in all the best and most modern styles, and nothing will be wanting for the comfort, care and, if possible, cure of these people. The institution will be extended as necessity demands. Plans are almost ready for a cottage to be erected at Orillia for weak-minded women, in accordance with the promise of the Premier and Mr. Stratton to the deputation from the National Council of Women, which asked for an experiment in the care of these unfortunate women and girls. Mr. Stratton was greatly impressed with the facts presented by the deputation, and will endeavor, as far as possible, to carry out the suggestions made. A residence is to be erected for the superintendent of the institution at Cobourg. The ground recently purchased for the Mimico Asylum is being cleared of buildings, and it will be levelled and utilized for the benefit of the inmates until the further extension of buildings becomes necessary.

Results of Council Examinations.—The results of the examinations of the Royal College of Physicians and Surgeons of Ontario were made known on July 2nd. The successful candidates in the final year are: A. H. Anderson, Toronto; S. W. Arthur, Inverary; D. M. Allison, Adolphustown; G. H. L. Armstrong, Richard's Landing; G. M. Atkin, Milverton; A. E. Archer, Moorefield; A. Brown, Motherwell; J. M. Baldwin, Deer Park; C. T. Ballantyne, Ottawa; J. B. Buel, Mallorytown; E. Brandon, Cannington; J. C. Connell, Kingston; C. Carswell, Bond Head; J. Campbell, Ridgetown; Annie Davis, Hagersville; A. Fisher, Toronto; G. W. Fletcher, Blenheim; C. W. Freeman, Freeman; R. F. Foster, Toronto; J. S. Graham, Toronto; J. E. Godfrey, Meaford; W. Alex. Graham, Denbigh; E. A. Gray, Wau-buno; W. J. Harris, Glencoe; H. R. Hutton, Centralia; E. T. Hoidge, Toronto; R. W. Irving, Ingersoll; E. P. James Galt, C. A. Jones, Mount Forest, L. W. Jones, Kingston; O. Klotz, Ottawa; H. Labrosse, St. Isadore; J. H. Laidlaw, Georgetown; F. E. Mellow, Sillsville; W. A. Meighen, Perth; W. S. Murphy, Portland; G. E. L. MacKinnon, Alexandria; C. H. Montgomery, Orillia; N. T. MacLaurin, Toronto; A. Moir, Dunnville; W. A. R. Mitchell, Perth; A. D. McEachern, Glencoe; G. McNeill, London; Elizabeth McMaster, St. Mary's; H. N. McCordick, Forest; D. McBane, St. Thomas; H. McGongan, Glencoe; W. A. McCauley, Warkworth; T. O. McLaren, Lancaster; C. G. McGreer, Napanee; C. H. McDougall, Strathroy; H. O'Neill, Mulock; W. J. Patterson, Peterboro'; J. E. (R.) Parry, Dunnville; R. M. Reid, Renfrew; J. W. Russell, London; R. W. Rutherford, Chatham; D. A. Sinclair, Toronto; E. G. Smith, Toronto; C. M. Stratton, Kingston; A. G. Smith, Delaware; L. L. Stauffer, Waterloo; D. Smith, Embro; H. J. Sullivan, Pieton; A. S. Thompson, G. A. Winters, Toronto; G. S. Wray, Lloydstown; T. W. Walker, Elora; E. M. Walker, Toronto; J. M. Waters, Toronto; A. B. Wright, Toronto; W. T. Wallace, Orangeville; C. A. A. Warren, Toronto.

The Passing Jest.—*Physician:* So you are the new assistant. Have you had previous experience? *Druggist's Assistant:* Yes, sir. I spent two years with John Smith, at B———. *Physician:* Then you must know my old elum, Dr. L———? *Druggist's Assistant:* Why, certainly. He's a nice old gentleman; kind to his patients; but forgetful at times, and he puts one medicine in nearly all his prescriptions. *Physician:* Magnesium sulphate? *Druggist's Assistant:* No, sir; ammonium chloride.

The Physician's Library.

BOOK REVIEWS.

American Edition of Nothnagel's Practice.

Diseases of the Pancreas, Diseases of the Suprarenal Capsules, and Diseases of the Liver. By DR. L. OSLER, of Vienna; DR. E. NEUSSER, of Vienna, and Drs. H. QUINCKE and G. HOPPE-SEYLER, of Kiel. The entire volume edited, with additions, by FREDERICK A. PACKARD, M.D., late Physician to the Pennsylvania and to the Children's Hospitals, Philadelphia; and REGINALD H. FITZ, M.D., Hersey Professor of the Theory and Practice of Physic, Harvard University Medical School, Boston. Handsome octavo of 918 pages, illustrated. Philadelphia, New York and London: W. B. Saunders & Company, 1903. Canadian Agents: J. A. Carveth & Co., Toronto, Ont. Cloth, \$5.00 net; half morocco, \$6.00 net.

This book is a valuable contribution to our knowledge concerning diseases of the pancreas, the suprarenal capsules and the liver. Any contribution on these subjects is of great interest to the profession, and these monographs will be found of unusual importance. In the sections on the pancreas and the suprarenals, the numerous experiments upon animals cited will be of great value to both the pathologist and the clinician, affording an insight into the more deep-seated processes, and offering an opportunity of comparing the disturbances of function produced by morbid conditions experimentally induced, with bedside and autopsy observations. In editing these sections the editor has availed himself of the writings of Korte and Mayo Robson, especially the latter's important treatise on the etiology and treatment of chronic pancreatitis. An editorial addition to the section on the suprarenal capsules, which seems especially noteworthy, is the investigations and discoveries on the active principles and therapeutic properties of suprarenal extract. The excellent article on the liver is thorough and full. The late Dr. Packard's careful clinical work, and his interest in the diseases of the liver, marked him as a most suitable person to edit this article. A survey of this work shows numerous valuable additions, embodying the latest contributions, besides expressions of his own views regarding subjects under discussion. He has devoted special care to diagnosis and treatment, including the surgical procedures that have recently found their place in this field.

With these numerous editorial additions the articles are brought fully up to date. There is perhaps less to criticise in this volume than in any that have yet appeared.

A. M'P.

Kirke's Hand-book of Physiology. Hand-book of Physiology, revised by WILL H. ROCKWELL, JR., M.D., and CHARLES L. DANA, A.M., M.D., Professor of Nervous Diseases, at Cornell University Medical College, New York; Physician to Bellevue Hospital; Neurologist to the Montefiore Home. 17th American edition. With upwards of 500 illustrations, including many in colors. New York: Wm. Wood & Co. 1902. Canadian Agents: Chandler & Massey Limited, Toronto and Montreal.

Kirke's Physiology has for many years now been looked upon as one of the most reliable works upon this subject. To this book and the manner in which it elucidates a somewhat difficult subject, a very large number of medical men of to-day can look back for quite a long time as having been the means of assisting them in comprehending what to their student minds proved almost a *pons assinorum*, as it is very often the case that it is not so much the subject itself as the way in which it is presented to the reader that proves the stumbling block. When we looked over the 17th edition of Kirke, it was a very simple matter to recognize what a vast improvement this edition is to that one from which we first studied physiology nearly two decades ago. The 17th edition is what might be termed a thoroughly modern presentation of the subject, and can be looked upon as complete in almost every detail. The authors have revised almost every chapter, though the department to which most attention has been paid and care given is that devoted to physiological chemistry. The 75 or 80 pages on the subject of "Food and Digestion" are well worthy of the most careful perusal, as upon the proper understanding of this department of physiology depends largely the successful practice of medicine.

W. A. Y.

International Clinics. Vol. I., thirteenth series, 1903. Philadelphia: J. B. Lippincott Company. Canadian Agent: C. Roberts, 1524 Ontario Street, Montreal. Cloth and boards, profusely illustrated.

This splendid quarterly, edited as it is by men of eminence on both sides of the Atlantic, fully maintains its high standard of excellence in this latest volume. We can, however, only indicate its contents in such a brief review. The leading article on treatment is by William Osler, M.D., on "Aneurism of the Descending Thoracic Aorta." Further articles in this department are: "Treatment of Cardiac and Vascular Fibrosis," etc., by R. Webb Wilcox, M.D.; "Nauheim Methods in Chronic Heart Disease," by Thomas E.

Satterthwaite, M.D.; "Treatment of Diphtheria," by M. Howard Fissell, M.D. In the department of medicine we find articles on "Primary Intestinal Tuberculosis," by Frank Billings, M.D., and on "Pyloric Obstruction, Gastric Dilatation and Stagnation," by Max Einhorn, M.D. In surgery, timely and interesting articles are contributed by William Keen, M.D., F.R.C.S., England; Nicholas Senn, M.D., Ph.D., Thomas Jonnesco, M.D., George C. Ross, M.D., and Thomas H. Manley, M.D. John Thomson, M.D., F.R.C.S. (Edin.), contributes an excellent article on "Convulsions in Children." A. R. Shands, M.D., reviews the "Treatment of Weak Feet and Flat Feet." There are also other special articles, and a splendid review of the progress of "Medicine, Therapeutics and Surgery during 1902," by Edward W. Watson, M.D., and Henry W. Cattell, M.D. Practitioners and students will find this volume of great assistance in helping them to keep well-posted on the recent advances in medicine, surgery, etc. A. J. J.

Tuberculosis: Recast from Lectures Delivered at Rush Medical College in Affiliation with the University of Chicago. By NORMAN BRIDGE, A.M., M.D., Emeritus Professor of Medicine in Rush Medical College; Member of the Association of American Physicians. 12mo volume of 302 pages. Illustrated. W. B. Saunders & Company. 1903. Canadian Agents: J. A. Carveth & Co., Toronto. \$1.25 net.

Brevity and clearness characterize this very complete work on tuberculosis. All aspects of the subject, with the exception of the treatment of surgical cases, have been carefully considered. There are excellent chapters on the bacillus of tuberculosis, the tuberculous process, forms of tuberculosis, pathology, etiology, symptoms, physical signs, diagnosis and prognosis of tuberculosis. The important feature of the work, however, is that a great deal of space is devoted to the prophylaxis and treatment of the process. The value of disinfection and isolation is dwelt upon and a plea made for sanatoria. He subdivides his treatment as follows: Hygienic, management of the diseased lung, climatic, medicinal and local, various special treatments and sanatoria. Each branch of treatment is skilfully presented and exhaustively described. A certain pleasing dogmatism prevails, so that one is never left in doubt as to what the author really means. Needless to say the advice of such an authority is always valuable. He places his greatest faith in the hygienic and climatic treatment of the disease, and believes that drugs are used much too indiscriminately. In sanatoria the author asserts that we have our most powerful weapons, not only for curative but prophylactic treatment; in them rest our best hopes for successfully fighting this dread disease. The medical practitioner will find this an exceedingly instructive and very readable work.

A. J. J.

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Original Contributions.

THE HUMOURS OF A COUNTRY PRACTICE

BY E. H. STAFFORD, M.D.

I HAVE had a theory for some years past that the country doctor ought to get more enjoyment out of life, whether he did or not, than his confrere in the city; and now I know that he does. The fable of the country mouse and the city mouse fits so obviously to the present case that it is unnecessary to apply it. I will give instead my own experience in a country practice.

I had formed my idea of the country practitioner and his practice largely from the flattering representations of him set forth by his avowed lay admirers, the artist and the author, who have imputed to him, as it will be remembered, all the virtues, and likewise the usual reward of virtue: which, being its own reward, is not capable of further simplification. I was convinced that he retained a spirit of cheerfulness when the weather or the financial outlook, or both, were bad; and that his position in a paternal community was affected by neither commercial depression nor the change of political parties. I understood that at the proper season he picked great quantities of little roots and leaves such as he would require later on, and with suitable resinous gums and juices and brown sugar boiled them in a pot on the stove until they became very potent medicated syrups, chiefly cathartic in principle, which I readily believed would prove exceedingly efficacious when the right time came to exhibit them. I knew furthermore that he was a man of a heavy moral habit, gruff but wholesome, and that on rare occasions he would unexpectedly come out with remarks which were full of profound wisdom, and were gratefully remembered by his contemporaries and handed down to an appre-

ciative posterity; or perhaps say something to some giddy worldling, temporarily appearing there outside his chosen *milieu*, which would cause him (the worldling) to abruptly shut up, and afterwards come meekly back and shake hands with the sarcastic but very upright old doctor, and say that the rebuke had done him a power of good, upon which the doctor would say considerably more to the same purpose.

All this, and much more beside, I had accepted as a matter of course, without being tempted in the least to nail up my shingle in Bœotia, and also without having, when all was said, the remotest notion of what the real compensations of a country practice actually consisted. Indeed, I should not be prepared to speak with any authority of these compensations now, had not the fervent desire of my friend Pillory to get away from the country coincided so closely with my own to get away from the city. I do not mind even confessing what city it was. It was Washington. But Doctor Pillory was all for excitement at that time, and I was all for tranquillity. So he took an army surgeoncy and went to the Philippines, and I took some work I had and went to Seminole. He sent back his photograph from San Francisco taken in uniform, and that, no doubt, was the beginning of the excitement. The beginning of the tranquillity, which was to be my portion, may not unfittingly improve the present hour.

Having dressed up so as to look like an earnest, plain man, but without going to the unnecessary expense of a photograph, I packed together a few knives, a stomach pump and a pair of Simpson's forceps and said farewell to my friends who came down to see me off at the Chesapeake and Ohio station. Now, the way to get to Seminole after you leave the train is to take the little steamer Louisa, which is the only thing that ever goes there now: for it doesn't pay, they say, to run the stage any more. The Louisa is also the mail boat, and has a sort of monopoly, so that the captain appears to be quite indifferent to the passengers. His knowledge of navigation is not extensive. After having been dropped by the train at four in the morning near the lonely wharf, together with a sewing machine and a few barrels of flour, I had waited for some hours with considerable interest for the coming of the Louisa, and was therefore much relieved when I saw her make her appearance at last around the point. This little vessel is run by two men: a large, oily man who does things about the engine, and lets off steam and things like that; and the captain, who bellows orders to the passengers on the wharf. The mooring of the Louisa is the duty of the passengers, and they are supposed to attend to this without any pecuniary return. If there are no passengers I don't think she moors.

On this occasion the Louisa did not describe a scientific curve

after the approved manner of steamboats and gently run alongside the dock, but approached it straight and came up with an awful bump, stem on, which upset the sewing machine. At this she recoiled, and floated in an apparently dazed condition for a few moments a little distance off. The captain's daedal hand was upon the wheel, however, and presently she began to describe a number of crafty loops, and then came up with another bang against the wharf. As she bounced off the second time Simpson (the captain) noticed me and told me parenthetically to go to h—. That is what I mean when I say that he is not conciliatory with the passengers. After some further delay the *Louisa* had got in such a position that her poop was helplessly facing the wharf, and, having counselled with himself like Palinurus, the captain came to the conclusion that an unusual naval manœuvre was called for, and she was accordingly propelled backwards towards the wharf, coming this time very slowly. The effect was very similar to a lady's entering a room backwards, and unexpectedly coming up to greet one in that reversed position. When the *Louisa* was near I stirred myself with alacrity and fastened the mooring hawser, and so was able, after a good deal of bumping and knocking, to get aboard through a little trap-door over the screw. The sewing machine and the barrels were also brought in by this opening, the captain attending sulkily to these matters himself, as I showed no further disposition to make myself accommodating the moment I got a foothold on board. When we arrived at Seminole, which was fifteen miles away, and which occupied the rest of the day, the captain simply and uneventfully ran the *Louisa* into a narrow slip which was originally a part of a saw mill, and there jammed her fast. Simpson's field of usefulness was formerly confined wholly to this saw mill. I have since learned that the recent responsibility of running a steamboat has tended to sour an otherwise amiable disposition. There is also considerable tension, I am led to infer, between Simpson and the engineer. The latter speaks with considerable disrespect of the chief's attainments in navigation. In private Simpson claims, I regret to say, to be an atheist.

Pillory's office, for which I was destined, was over the drug-store across the way from the Ocean Hotel and Beasley's stables. My coming, I found, was not unexpected, and a couple of days before there had been a paragraph in the *Weekly Vociferator* stating that Doctor Pillory's practice would be regularly carried on during his absence by me, and that I was a phrenologist of considerable skill and would practise that specialty in addition to the forms of regular medical procedure. Also that I hailed from the good old State of Virginia (the Old Dominion), and that I was an enthusiastic "Modern Woodman of the World."

My friend's last will and testament had been verbal and had got somewhat disadjusted before it reached type. However, I found that it really did not matter in the least. The rest of the paper was less interesting, though it may have been just as accurate. There was an able editorial which expressed the withering contempt which respectable people (including the editor) felt for individuals who did not subscribe, but went into the houses of their neighbors and there revelled inexpensively in their copies of the *Weekly Vociferator*. But I liked the local page. There I learned that Sarah Geboo had two bouncing boys (all doing as well as could be expected), that Nathan Fooze had commenced work on his new "root house," that Abner Reeze had dropped three dollars (bills or silver not stated) before a discriminating pig whose repast he had just provided, and that the animal had instantaneously devoured the money, and that Abner was going to raise on the price of the pig to cover the three dollars (no editorial reference to pearls before swine, though a pig like that, I thought, would probably eat pearls, and even diamonds). I also learned that Mrs. Lydia Dowler had been staying a few days with her sister-in-law; that the Seminole Hardware Company had failed for the seventh time in eighteen months, and the financial magnate who ruled the destinies of that concern bought a "buck-board" on the strength of it; that the neighboring (and rival) village of Antrium was contemplating remodelling the Hotel Antrium, which had not been a financial success, into an opera house, but that the people of Antrium (who, in spite of their operatic leanings, had no newspaper of their own) would do better to subscribe to the *Vociferator*, and find their permanent entertainment in its enlivening pages; that—

Here the editor himself, a tall, coy, delightful fellow, made his appearance, so it was impossible to read any further. I was to learn to like both the paper and the man very much before I was done with them, and looking back just now I must add that the newspaper was the right thing for Seminole, and that the editor would be the right thing any place. He had come to show me over to dinner, so, putting a long straw in my mouth, and chewing it contemplatively, I crossed the road to the hotel where I was to put up, keeping strict watch over myself upon my first public appearance. This hostelry is kept by Major Coyote, a fierce, hot-eyed man, who, in his purer moments, is capable of the softer feelings. The tables were heavily loaded with an inexhaustible supply of peaches, grapes, and melons, and it is a little custom of the Major's who is lean and small in stature, to go about during the meals puffing a large cigar, and to lean with a sort of stern benevolence over the guests while they are eating and ask them if they are getting plenty and if it is right good. The guests, in

the act of deglutition, look up dumbly with their mouths full, and try to convey a look of utter ecstasy with their eyes, while with a quivering gesture they brandish a fork or spoon in one hand, as much as to intimate that they never saw the like of it before. There were a good many mercantile travellers present, but I do not think that I like them very much. Many of them wore upon their persons as much shining metal ornamentation as a horse, but I usually found them somewhat more noisy than the larger animal.

In the morning Champney, the colleague of my absent friend, drove over from Antrium and continued the initiation commenced by the editor. I spoke to him with ardent enthusiasm about the getting of herbs and simples (what are simples, anyway?), but he dismissed this at once. The way now, it seems, for the country practitioner is to get tablets, which you take with you in a little satchel made for the purpose, with bottles inside. These tablets you dissolve in water in a tea cup at each house, from which the patient takes a sup every hour or so until you come next time. But in Hawthorne's romance the doctor did not have tablets, but only roots, which he used to get himself. What I afterwards found of more importance than the drugs was the nursing. But in the country there are few women, however good their intentions, who have learned the niceties of a trained nurse, especially in the matter of nourishment, and I had much difficulty for a time in hitting upon a plan whereby I could regulate the patient's diet and know exactly what he was getting. It is customary for the neighbors to bring in all manner of ill-timed dainties, which are sometimes almost sufficient to despatch the patient. It was at this time that I began to use Horlick's Malted Milk extensively, and though I had often found it of use in city practice, I soon regarded it as indispensable in the country. It is so simple to prepare that the attendant cannot possibly make any error, and by making a sweeping order that absolutely nothing else shall pass the patient's lips, the physician can drive away with some sense of assurance. In several cases of senile decay, where the patient was simply starving to death for lack of food that he could assimilate, the malted milk got them on their feet again.

I told Champney what literature and art had done for the aged country doctor, but he informed me that there were no medical valetudinarians thereabouts. The only old man was a charlatan of the name of Grubb, whom we, of course, could not recognize. Old Grubb had a white beard fifteen inches long and looked very patriarchal. But he was not a very nice old man. He gave brownish herbs, like in the story books, only they were not good herbs, and he was himself becoming disaffected with them, and seemed to have a preference for modern scientific methods, and had privately constructed a wonderful apparatus out of a disused sewing

machine and an ice-cream freezer. With this interesting engine he claimed to produce the "genuine X-rays," and had several patients whom he was treating for piles and catarrh by its beneficent application. He had it drawn up with all its wheels close to his office window next to the post-office, and was at work there by the hour in his shirt sleeves, solemnly turning the crank, where all the townsmen could in their awe observe. The patients, however, were kept at the other end of the machine and could not be seen from the street, nor did they probably wish to. Beside him there were three other quacks in the community, though none of them so well stricken in years: two in Antrim, and one more in Seminole. Of regular practitioners there were only Champney and good old Janes, a tall, polished fellow, ten years our senior, and an ornament to the profession, who did me more than one good turn later on. Champney told me that the four charlatans looked upon us as interlopers, very much as physicians usually do quacks. The villagers had no opinion on the matter whatever, but accepted us all without question, just as they did the diseases for which they called us. I never saw it in that light before, but I noticed afterwards that old Grubb turned his crank with a sort of supercilious air when he saw me stare up at him, as much as to say, "You haven't one of these things." But I learned a great deal from Champney while we were driving that long, golden autumn afternoon through forest and farmside. It was so pleasant to drive on mile after mile, and here was one of the compensations of a rural practice the first day. Another was in the charlatans.

Disregarding Champney's attitude, I lost no time in making the acquaintance of the whole four. They received me at first with frigid reserve, but this soon melted (perceiving my guilelessness) into the most effusive *bonhomie*, and I must say (though I never told Champney) I found them uncommonly interesting, even though they were beyond the pale. I became positively fascinated with them presently, particularly the mesmeric healer and the stomach specialist. But I didn't make much headway with old Grubb, for he saw through me, I imagine. And if it was ill-done by me to consort with the unclean—well, the regular practitioners in this region are not much better. The average is very low. A superficial knowledge of therapeutics, and a little crude surgical handiwork picked up in two four-month courses of study at some cheap little out of the way college. Many are graduates of "Correspondence Universities," of which there are a very great number in the large cities. In these institutions of learning you "study medicine at night." The text-books employed in these nocturnal studies consist of half a dozen quiz pamphlets, and the whole makes up a sort of medical Chautauqua which is very edifying in

its results. Last year I actually stumbled over a medical college which granted degrees, and which was conducted in two rooms of a boarding-house. The medical profession here has no social prestige and stands among the trades.

The Stomach Specialist's library consisted of Dr. Chase's Receipts, Chavasse's "Advice to a Mother," Marion Harland's "What a Girl Ought to Know," Jordan's "Family Doctor," "Phrenology," and "Science and Life." He had never heard of Gray's "Anatomy," and did not know accurately what anatomy was. He had an idea that "phyzzology," as he called it, was something about the face or head (physiognomy). Physic and physics both meant a laxative. Surgery suggested the idea of a knife only. His knowledge of materia medica was gathered entirely from the catalogues and publications of drug firms distributed free. Of these he possessed a large collection, and gave a pill of assafetida for a broken rib. He signed himself P. H. D. (Ph.D.), and told his admiring patients that this stood for "doctor," but was preferable in many ways to the M.D. He couldn't read the newspaper correctly. He could barely write. His manners were those of a Wisconsin shantymen. Nevertheless he had the largest practice in the vicinity. He affected the ecclesiastical in his dress and wore a white cravat. He had a remarkably fine face and a deep, unctuous voice, and talked in the style of an evangelist. The secret of his success is simply that he belongs to the class of people among whom he works. They instinctively feel this themselves, and in a subconscious partisan spirit are proud of his attainments. The democracy is very sensitive, one must remember, and in a permanent state of hyperesthesia. The individual is perfectly assured of his superiority to kings, potentates and sages, and keeps constantly saying it to himself so that he will not forget it, and is insulted and angry if everyone else does not say it to him also. My doctor of philosophy goes in their back doors without knocking. He knows about all the articles which they have in the house, and he bargains with them for oats and kitchen utensils, which he afterwards exchanges elsewhere to his own profit. He has three huge family Bibles now which he has borne away as payment of his bill. These seemingly marketable volumes he will presently trade off for a set of harness, or an overcoat, or a small calf. He reminds me of Mahomet. He is insolent, cunning, vulgar, and unutterably ignorant. He is untruthful, dishonorable, and quite dishonest. This man has his like in every village and town in the country. The type is really a survival, if one will take the trouble to open Moliere, as old as Chaucer, as old as Plautus, as old as the first knave and the first fool.

Before leaving the subject of charlatanry I must tell of the

metamorphosis of the magnetic healer which took place under my very eyes. I never before saw a quack come into being. As the birth of the Olympians, so is the making of the charlatan. They are, where but a moment ago they were not. It is at a stroke. It is without preparation, sometimes even without premeditation, and comes unexpected to all. This was old Hook, and one afternoon he suddenly made his appearance in the office bursting with importance. But I was in no way amazed at this, for he was always in this state of spirit. He was something of a character. "Windy Hook," he was familiarly called, and he came from Idaho in particular, though I believe a propensity for polygamy had made necessary a residence in a number of other commonwealths. Indeed, it was to enjoy an interval of calm, to spend a brief period in prayer and meditation, that had brought him to Seminole. Lombroso would probably have called him a mattoid. Certainly his ear and chin were unlovely. Almost daily at the hotel he was in an altercation all dinner with Major Coyote about his chair, or room, or something, which was rather diverting for the rest of us, and when the Major would at last have him silenced with his heavy military choler, I used to make it a point to look over at Hook steadfastly from my table with a meaning glance, denoting a sort of mute sympathy, as much as to say that he was certainly in the right and that I honored his individuality. Inflamed by this silent encouragement of mine, and feeling that he must live up to it, Hook would then suddenly burst forth again, like an imperfectly extinguished fire, and gird freshly at the Major, who thought he had finished him. By casting continually upon Hook this penetrating gaze of admiring sympathy and moral support, I have seen him, even after he had quite forgotten the first cause of his grievance, break forth into repeated eruptions of rage, until the Major, poor old boy, at last quietly withdrew from the dining-room. For this reason, I can think of no other, Hook counted me among his friends. Now the day before he happened to touch in passing the knee of the village attorney, who is troubled with rheumatism, and who is nevertheless a practical humorist. At the contact the attorney started up, and in an excited voice asked the gentleman from Idaho in the name of Sancta Misericordia to touch him on that knee again. Hook complied automatically, and then, according to the Man of Lawes' Tale, the rheumatic pains instantly left that sorely afflicted member. Hook did not at first know how to be affected by this phenomenon, but when the attorney revealed to him the undoubted fact that he possessed the gift of magnetic healing, he saw at once a great and shining light, regained his equilibrium instantly, stated that he had known of this for some time, that it had descended to him from an ancestress—

"At first it was tingling and smarting," the lawyer interrupted, with the ease of his profession, "but now I feel like a new man." Pending arrangements for a public seance before an audience of, say, fifty in the hotel parlor, where, it was to be hoped, Major Coyote would consent to receive magnetic treatment for a fatty tumor, which it was currently believed he bore carefully concealed somewhere about his person, Hook had hastened over to me and informed me that I was a made man. I was much gratified at this, and he went on to explain his mysterious gift, which he had tried long to conceal, but which had just been discovered. He now proposed to unfold it before the world. He would now, he said, *profess* this gift which he possessed, and would therefore become clearly a professor. He implored me to use this prefix when addressing him, and with a gesture that signified he would soon be back with something that would surprise me, he left the office. Two hours later he returned with a wonderful array of very conspicuous garments which gave him vaguely the appearance of a blue tiger. The tigrine effect was produced by a startling striped shirt, and such very tight trousers that his wiry and bent lower extremities looked like the hind legs of a dog. He approached, snapping his fingers with electricity, and gave me a playful shock on the knee. But not only had he just got the clothes, he had also just got a patient. Moreover, it was one of my patients. The aged Hecuba had called him in as soon as she heard the news. But Hook, in a spirit of altruism, had decided to save her for me, and insisted that I must be present at the mystic rite. Hecuba was a typical neurasthenic who had first tried all the physicians, and on whom I had next tried all the pharmacopeia, ending with *passiflora*. Then she had threatened to go to the female osteopathist unless I gave her osteopathic treatment. At this I plead with Champney to take her off my hands, but he wouldn't. Then I plead with her to go back to Janes, but she was afraid to. She said she knew the trouble was in the bones. This was before the fame of Lorenz, and knowing very little of osteopathy, I, in desperation, reduced an imaginary luxation of the femur by manipulation, and asked her if that relieved her distress. She said that she had not felt so well for twenty years. But when she got home she told her three stalwart sons of the simplicity of the new treatment, and, having a mind to economize, since they could manage this just as well at home, the three men set to with violence, and nearly twisted and rotated the poor old soul's thigh out of its acetabulum, so that she couldn't step, and felt twenty years older again. It was then, being satisfied with osteopathy, that she sought succor from the new star. Moved by curiosity and a desire to keep Hook within bounds, I consented to go with him to see Hecuba, and as

soon as we were in the house he informed us that it was necessary, as a preliminary, for him to concentrate the magnetism within him, and for this purpose he withdrew to an adjoining room, where at first there was a faint whirring sound, followed by a loud whiz. The professor then leapt crouching into the room with glaring eyeballs, but Heeuba was so terrified that with unexpected agility she bounced from the couch, and with a hoarse, crow-like caw of fear went flapping up the stairway, leaving the chagrined professor with the magnetism escaping from every part of his palpitating frame. Having adorned the tale I then pointed the moral after Hook had gone away. I believe Heeuba is dipping unostentatiously into religion of late and finding much benefit.

The village schoolmaster and the minister employed their leisure in lettered ease, but the attorney's tastes were different, and when he wished for relaxation he assumed temporarily the functions of an auctioneer. His sallies of wit had the effect of convulsing the husbandmen, and also brought him closer in touch with them, so he felt he possessed a definite political "influence," a commodity which entered largely into his continuous negotiations with his congressman. Champney's pleasures were of rod and gun, but the fact became noteworthy that he never brought up a single fish or brought down a single bird, though one day he shot his dog. I used to call him "Old Sleuth." The pedagogue's little family were all down with scarlet fever when I first made his acquaintance. He was a prolific writer of verse, which was indeed seldom absent from the poet's corner, but his muse, who had probably never had scarlet fever, and had no mind to take any chances, had abandoned him in a most vexatious manner upon the appearance of sickness in his abode; and he was then irritably killing time by writing an historical novel, full of anachronisms and intrepid heroes, and interspersed frequently with very lively duels. I soon saw that I was in the presence of a self-made man in process of making. He had grammars of various languages and was learning all the verbs, and in various other ways was "improving himself." But I never liked verbs very much, so I paid most attention to the historical novel. The young minister was a different sort of man and did not dissipate himself in the thin air of history. He had something better nearer home. The first day he showed me his new suit of black clothes. He had a picture of himself in his watch locket and also some of his own hair there. Like the schoolmaster, he was literary, but more particular in the choice of a subject, for he chose himself. He read me a long poem in blank verse in which he pictured himself as a great general in a suppositions war, leaving the pulpit (without turning a hair) to go out and lead the army. His mother was also in this poem. She didn't want him, very naturally, to go out to the gory field

of slaughter, but he tells her the country expects it. I surreptitiously showed this poem to the editor, but at the sight he turned quaking back to his forms. He had seen it before. This minister has plainly had too much female adulation. He is quite intoxicated with himself, and, as from the mouth of a wind god, bursts forth from his lips the rounding gales of egotism.

The run of practice in the country differs widely from that of a public institution or a practice in the city. There is more individuality in the country people: the result of their isolation. To be sophisticated does not necessarily imply the presence, but rather the obliteration of character. I thus found my patients more simple and more interesting. They were frequently stupid and often uncouth, but very seldom vulgar. My demesne extended four miles south by about five north, and from the shore back to the "desert": a sandy wilderness abounding in cacti, and reaching, I do not know how many miles away, till it comes to the margin of a fertile inland valley, where I am told there are populous towns and railways. We never penetrated very far into these wastes. The roads became indistinct and at last ceased. The houses dwindled away. The fences disappeared. Once I found a little lake there, but when I whistled there sprang up a hundred echoes, weird and uncanny, about its barren shores. I thought I found the posts of a cottage burned down years ago, but I am not sure. The past, like the rain, has sunk into the sands, and there is nothing left. But in the rich belt along the coast the farmers were apparently prosperous. It is quite Arcadian there. The greater part of my work consisted in scouring this country round about. I soon knew every road and lane, and every farmhouse. I don't think I had any cases of scientific interest, nothing but the usual fevers and broken bones; though, speaking of bones I had a case with nearly the whole of them broken at once. A tree fell on the poor man, and he persisted in getting well, pneumonia and all. I was very greatly surprised at him for doing it, and still more so when I found that I got the lion's share of the credit, and came into a vogue thereby. But in most of my cases I would have been surprised if they had not got well. When one is ill, however, it is usual for him to think that it is very grave with him, and in the country it is the custom of some practitioners to foster in every way this fortunate impression on the part of the patient, even when the contrary is the case. I do not altogether like this, and refuse to do it. But more than once when I have told them their symptoms were all gammon, and that they would be all right when they got over their fright, they have tottered away in their rage to old Grubb. I believe he tells them it is very serious, and proceeds to save their life with the machine, if there is yet time after having delayed with me. And even when they

stay with me, and in due time are quite themselves, as I have foretold, they often remark afterwards, with awful significance, that their miraculous recovery was no thanks to me, because I did next to nothing, and did not even think it necessary to see them more than once a day. But even so, it seems beneath one's dignity to take advantage of the ignorance of the poor. I soon found myself taking a pleasure in ministering to their wants, and these were not medical alone, for by degrees they began to consult with me on all manner of subjects, and I got myself into three different law suits before I was done: not as respondent, but as oracle, expert, witness and friend.

In fact, I like them. And as I drive along the quiet country roads in the waning autumn, and see these simple yeomen out in the wind and the rain among the corn sheaves or potato plantations bending over their hard toil in their old rough clothes, and rising erect for a moment to greet me as I pass; a melancholy feeling steals over me, and I am amazed at myself that I am able to charge them anything at all, for it probably takes a couple of days of such labor, and perhaps more, to pay for one of my visits. Indeed, to look at a farm one is led to wonder that the occupant is able to realize any revenue at all, for it never looks as if there was anything very much there. Still, in some unaccountable way they certainly do live very comfortably. What I cannot understand is that the farmer should be considered a subject for ridicule by those who have left the rural regions and gone to the city. For it is only these who take that stand. At the hotel there is such a one. He is a very objectionable, hard-faced, loud-voiced person, whose name I never was sufficiently interested to ask, but who everyone calls the "potato buyer." He despises these worthy farmers and heaps upon them all manner of obloquy, chiefly, I believe, for the reason that they do not consent to yield up to him their potatoes for nothing. A potato expert cannot be supposed, however, to be cultured or humane. My dislike for this person has become an obsession. I often look at him with the most sinister feelings, and wish that he would fall sick, awfully sick. But his constitution is very strong. He presses the potatoes with his thumb, and bites them raw to see if they are of a good quality. This may tell on him in time! And then in his vocation he is a great deal of the time prowling about the freight cars in which he ships his vegetables, and some day one of the cars may perhaps run over his foot. At present, though, nothing is certain, and he still goes on with detestable composure, unmindful how I hate him.

The country, above all, is the best place for intellectual pursuits. *Mens sana in corpore sano*. The greatest sages are represented as retiring from the world when occupied in thinking out

their systems of philosophy. Buddha rested in the solitude. Christ, whose life was almost entirely spent among men, and who was no recluse, spent forty days in the wilderness. Iliawatha did the same, and also, I believe, Elijah. Thoreau spent a couple of years. It is healthful and refreshing. The unobstructed light of the sun, dewy eve, the odors of field and forest, the soft sounds of nature and the soothing silence of the night, all these calm and tranquilize the mind, and one is able to give to his thoughts that unbroken attention which is impossible in the haunts of men. There are those who speak of the stimulation of cities. They confound stimulation with irritation. But far away from the tainted purlieus of the town, how restful, yet inspiring, is the simple life of the country, especially after the novelty which first impresses one has worn off and we have entered into it in spirit and in custom. For that matter I later on found even the village a disturbing element, and the next summer closed the office and took up camp in a beautiful forest spot near the thundering waves where I had seen some gypsies camping. Near at hand there was a lonely marsh threaded by a curling river and wide reaches of black, standing water, and rushes forever whispering. There had been a trading post here in the days gone by, and recently a portion of the overhanging bank, undermined by the wash of the waters beneath, fell forward, and from the exposed earth behind a grey skull was sticking out. They had buried him deep, indeed, long ago, but though the wild animals could not tear open his unmarked, forgotten grave, the river, that knew all things, had eaten it away. Priest or pirate, soldier or hunter, whatever his station, the river gave him one more look at the world. In the city one is prone to forget the past. In my forest lodge I lived entirely in it and read my "Pseudo-Herodotean" Life of Homer every day. Ah, there was a restless man for you! But sometimes I was called back roughly enough to the present. One night a large steamboat with a hundred lights streaming from her windows came driving in toward the shore, disabled in some way, and went to pieces in the waves. The passengers all got away in boats and landed miles beyond. I never saw any of them, but for many months the white wreckage lay strewn on the sand. Some of the furniture I took to my cabin. Afterwards a panther escaped from some circus and took up his lair near mine in the forest, where he used to yelp at night at intervals with the hooting of the owls; and at that time I was conscious of a certain reluctance to go to the spring, even with my revolver, after dark, in case, being so shortsighted, I would not be able to see him if he jumped at me.

But all this happened later. I came to Seminole in October, and the Indian summer soon gave place to winter; but if anything, I enjoyed driving in the storm more than in the summer sunshine.

It shouted to me with a thousand voices. Yet I seemed alone: the snowflakes thickly falling, the muffled ground, the wailing in the pines, the early nightfall; all these had a peculiar charm. And the houses had so much character. There was the cabin where the old witch lived. That is a secret. There was the old Colonial mansion with dainty Irene on the doorstep. There was the low cottage which held poor old McGraw. He must be dead by now! He mortgaged his land to go and see his fashionable married daughter in the city once more before he died, and perhaps to find a home with her, and honorable burial at her hands. But he lost his way in the dazzling lights, and she said he was intoxicated, and refused him, so he came back and is dying there alone. I shouldn't wonder but what he was intoxicated. I know he has the last of my Jamaica rum, and I hope he will have a good comfortable drunk on it before he shuffles off this mortal coil. Every house on the road has its story. And how pleasant in the winter's dusk to see the red window light of some big farmhouse, when my meditations would be agreeably broken by the good cheer and quaint courtesy of those within. It was good to stand by the roaring fire and joke with them about our little affairs. They soon learned that I was very partial to hard cider (I assured them deprecatingly that it was a "wholesome, fruity juice"), and always after I arrived the coy daughter of the house would appear from down the cellar with a great pitcherful in her hands. I liked the cider better than the homemade wine. There are no written invitations at Seminole. The social intercourse and hospitality is usually impromptu. Premeditation in such matters suggests the idea of formality. And so the winter passed, and the sledge was put away. Then came the spring, when every hillside was violet and pink with peach and apple blossoms. The birds began to sing in the orchards, and the naked fields grew softly green. The cow-bells were heard again in the underwood, and there was a delicate smell of flowers in the air. Presently it was high summer. A few days more and the autumn leaves were sadly falling. My year in the country was over; my work was done. I am back in town with the roar of the asphalt in my ears. I can hear the carriages rolling and rolling down Pennsylvania Avenue from the Capitol stair to the Treasury. I wonder where Nell is to-night? She is my last memory, you see, of my days at Seminole.

She was the one companion of whom I never tired; and I will confess that I followed her everywhere. But we never dined together, for she was a vegetarian. Nell was not only beautiful, but she was very clever. If I was not sure of the house she would be sure to know, and would stop at the gate. I trusted her too much. One sometimes does when over-infatuated. She had a

sense of humor, and I verily believe I have seen her smile. She used to eat grapes out of my hand. She took everything as her right, did Nell, just as Venus did when she received the golden apple. She was superstitious, too, and there was a place in the midst of a deep wood that used to terrify her. She saw something! I don't know what it was; but as she raced wildly away I began to feel the frissons down my own back also. It was always there, always, and she always saw it. Beasley said I spoiled her: but then—Beasley! A beauty seldom commands the entire respect of her tiring maid: and the brutish Beasley's office was to attend to Nell's toilet. She was a paying guest at his pension. This clownish hind used to place a whip in the carriage, but I always flung it back on the floor of the stable as I drove out. The idea of laying a whip on Nell! These, though, be but our diversions.

Nell is a heroine when real work is afoot. When the county telephone calls me unwillingly at midnight, and the somnolent Beasley brings her to the office door, my Nell looks out at me in the darkness as beautiful as Aspasia, as calmly dignified as Portia. And then for the highway! Out through the little village amidst its shadowy elms: we strike the main state road. Behold her swift untiring pace! Thundering over the iron bridge the wheels roar in the night. Pound, pound, go her hoofs on the hard white track. The gravel rattles from her sparkling shoes, and the harness rings and clatters as she flies. She races through the levels where the moonlight casts its spectral shadows, where the trees are dark and tall. She dashes into the forest with the clank and rumble of a Roman chariot. Pound, pound, go the flying heels at the edge of the hill, and we come tearing around the bend and stretch out breakneck over the narrow north shore drive. The waves break loud beneath and above whirls high the clouds of dust: but ever I can see that beautiful head and great dark eyes looking out into the night. I can see her tossing mane and the foam upon her breast, like point lace upon the bosom of a beauty, while the hollow roar of the wheels fills the air and the iron-beat of her hoofs echoes back from the rocks above.

But, alas, even then not always in time, or to no effect. The head has fallen and the lips are grey. Or more like, in any case, it was only to tell them as they stood scared about the bedside or weeping in the window—to tell them that it had to be. Clothed in a little brief authority! Yes, madam, he is dead.

Or after a long drive of thirty miles to come up in the gathering dusk over the northern slope and see the lights of the village in the distance and the steel glimmer of water. When chilled with the cold night air, and weary with the day's work, I part with Nell at the hotel door, and sit in the warm air of the general room

with the cheerful clink of glasses from the roisterers in the bar and the knocking of balls and good-natured guffaws from the billiard tables hard by; while still from the closed dining-room, soon to be hospitably thrown open for dinner, come the muffled sounds of agreeable preparation; do I forget my noble companion, led away unthought of, forgotten, unregretted? Better it were for the peccant Beasley that a millstone were hung about his neck and that he was dropped with a splash into the outer channel than that he should neglect the least item of comfort due to my Nell. It has ever seemed heartless that we should separate thus at the door. But it is not ingratitude on my part. Nell herself prefers that it should be so. Her tastes are somewhat different, and, as I explained before, she is a vegetarian.

THE EARLY DAYS OF OVARIOTOMY.*

BY MATTHEW D. MANN, A.M., M.D., BUFFALO, N.Y.

THE rising generation, which has only seen abdominal surgery in its full development, is apt to forget the trials and struggles of those who first attempted to open the abdomen, and who finally put the operation on a firm basis. Few can realize now the amount of opposition, both within and without the profession, which existed. McDowell, as we shall hear, was threatened with death; and later operators were almost ostracized for attempting this "murderous operation." In the last twenty years, the triumphs of surgery have been so great that now no operation, no matter what its magnitude, is condemned untried, and the result is awaited with patient and indulgent expectation. But only forty years ago, this was not so, and at the time that abdominal surgery had its beginning, the feeling of opposition to "butchering," as they called it, was most emphatic and unreasoning.

Abdominal surgery had its beginning in America. Many attempts have been made to wrest this triumph from us, but all have failed. The claims of the United States are now generally admitted as being clearly proved, and the name of the first operator rescued from oblivion and duly honored.

The first abdominal section, having for its object the removal of an ovarian tumor, was done by Dr. Ephraim McDowell, on December 13th, 1809, in Danville, Ky. Although practising in what was then the backwoods, McDowell was by no means an uneducated, ignorant, or pretentious adventurer. The operation was done after long consideration, after a full understanding of the difficulties with which he had to contend, and a careful planning of the technique. He had been a student of the great John Bell, in Edinburgh, and while there had heard it suggested that perhaps an ovarian tumor could be successfully removed. He formed the determination at that time that, if the proper case ever presented itself, he would make the effort to operate. After his return to Danville, he was sent for to see a Mrs. Crawford, residing a long distance away. McDowell found her trouble to be an ovarian tumor, and gave a fatal prognosis unless she was relieved by the knife. To quote from Dr. Gross:

"After a most thorough and critical examination, Dr. McDowell informed his patient, a woman of unusual courage and strength of mind, that the only chance for relief was the removal

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of the diseased mass. He explained to her, with great clearness and fidelity, the nature and hazard of the operation. He told her that he had never performed it, but that he was ready, if she were willing, to undertake it, and to risk his reputation on the issue, adding that it was an experiment, but one well worthy of trial."

Mrs. Crawford accepted the opinion of the physician with great coolness, and promptly assured him that she was not only willing, but ready, to submit to his decision, asserting that any hope of relief was preferable to the agony she suffered. She travelled on horseback—the only mode of locomotion in those days—to the home of Dr. McDowell, sixty miles away. So great was the weight of the tumor resting upon the pommel of the saddle, that a large contusion was formed on the skin.

On the day of the operation, McDowell was conscious that an angry and excited mob of men had collected outside of his house, openly threatening to hang him if his experiment of "butchering a woman" did not succeed. There is no doubt that if the woman had died, McDowell would have lost his life at the hands of his infuriated townsmen.

I have often wondered which was the braver—the man or the woman—the woman, to subject herself to an operation which she knew had never been done, an experiment which would cause intense suffering at the time, anesthetics being then unknown, and the result of which must be uncertain; the man, to risk his life for the mere sake of doing good, without hope of reward, except, perhaps, a modest fee, and with certain death confronting him if he failed. It seems to me that the bravery of the man was the greater. He put his life at stake without any necessity impelling him, except his love of humanity and his desire to do good; while the woman had death staring her in the face, and was accepting an opportunity which had never yet been offered to anybody, to escape the terrible, persistent suffering which would certainly come. To quote from Thomas Keith: "She had not much to lose—a few months only, it may be, of ever-increasing suffering—and she might gain much by an operation, having much to gain." Fortunately for the good of mankind, and of womankind in particular, the operation was successful.

The technique of the operation sounds a good deal like an operation done to-day. The incision was made, about nine inches long, a little to the left of the median line. The tumor was then opened, its contents allowed to escape; after which it was removed from the abdomen, the pedicle tied by strong silk ligature, and the tumor cut off. After this the patient was turned upon her side, to allow all the blood and fluid to escape. This having been accomplished, she was turned on her back, the intestines replaced,

and the wound closed by an interrupted suture, the ligature hanging out of the lower end of the incision. Dressings were applied, and the patient put to bed. Five days later, McDowell, on visiting her, found her making her bed. In twenty-five days she returned home in good health, and lived for thirty-two years after, she having been forty-seven at the time of the operation.

McDowell afterwards operated on twelve cases, eight of the thirteen being successful—a record which was not beaten until the advent of antiseptic surgery.

McDowell is described as a tall, strikingly handsome man, with an erect and commanding figure and lustrous black eyes, which seemed to penetrate the very thoughts of those who looked into them. His refinement and intellectual powers were of the highest type. Many stories are told illustrative of his abilities of mind: his unflinching adherence to duty in the face of adversity and difficulties seems to have been one of his strongest points. Stories are told of his adventurous rides through the woods, of fording rushing torrents filled with ice and driftwood, and other anecdotes which illustrate the nobility and force of the man's character. He might well have stood for the original of MacLeod, Ian MacLaren's justly famous hero.

McDowell was a man of strong religious convictions, and we have left to us a very forcible petition offered by him to Almighty God, a few hours before the appointed time to make the first ovariectomy. Who will say that it was not in answer to this prayer that his hand was guided to bring to a successful termination his momentous and trying experiment, fraught with interest, not only to the operator, but to humanity? It was certainly a trying hour to him, and we can well understand that he should have asked for strength and guidance where he thought he could best obtain them. His biographer says: "His abiding faith in the efficacy of prayer was beautiful, and no doubt his remarkable success in the field of surgery can be largely attributed to his strong convictions and unwavering faith in the Great Jehovah."

After McDowell no operations of this kind were done until 1821, when Dr. Nathan Smith, Professor of Surgery in Yale College, performed a successful ovariectomy. He was just as much entitled to the honors of a discoverer as was McDowell, for he had never heard of the Kentucky surgeon or of this operation. His methods were different, but the result was just as good.

The third successful ovariectomist was Dr. Alban C. Smith, of Danville, who had been a partner of McDowell's. He operated in 1823. A few scattering operations were done after that, but it was not until 1843-44 that a new impulse was given by the success of Dr. John L. Atlee, which was still further aided by his brother, Dr. Washington L. Atlee, of Pennsylvania. After this,

cases became more common, and, taking the country at large, several were reported every year, until in 1855 there were twenty-one cases, with six successes and fifteen deaths. This heavy mortality seems to have had the effect of diminishing the number, as they fell off rapidly, until in the years 1860-63 there were only three in each year. In 1870; Dr. Atlee reported his 200th case, while Kimball had had 121, and Dunlap, Peaslee, J. P. White, McRuer, Thomas, Bradford, Emmet, and Sims had had from 60 to 12 cases each.

In England the operators who first made reputations were Tyler Smith, Baker Brown, Chas. Clay, Thos. Bryant, Thomas Keith, and Spencer Wells. To the latter we must unquestionably give the credit of having done an immense deal to influence the profession, and to overcome the opposition which, up to 1860, had existed in England more than anywhere else. Many prominent men opposed the operation, very broadly denouncing those who attempted it as murderers, as guilty of malpractice, and using all their influence to keep the operation down. After Sir Spencer Wells' paper in 1860, opposition was silenced, and from that date it may be said that ovariectomy was adopted as a legitimate resource in England.

My own experience of ovariectomy began in 1870, when I entered the Strangers' Hospital, in New York City, as interne. Dr. T. G. Thomas was appointed gynecologist to this hospital, which had just been established; and, filled with ardor and enthusiasm, he soon collected a considerable number of cases for operation. During the year that I served as senior assistant and house-surgeon, I had under my care twelve operation cases, nine of which recovered. As can be readily imagined, an ovariectomy in those days was a great event. I have seen in the operating room at the hospital, witnessing and advising, and perhaps assisting, Dr. Thomas, Sims, Peaslee, Emmet, Noeggerath, Sands, Willard Parker, and others of the great lights of surgery in New York at that time. As we had no trained nurses, Dr. E. L. Trudeau, who was my senior by six months, and myself had to take the entire charge of the cases. The nurse would call us frequently during the night, and we would pass the catheter, give hypodermics of morphine, and do all the nursing which is now so much better done by our skilled and trained assistants.

Dr. Thomas's theory in those days was that a great deal of the danger was due to the shock to the nervous system, which led to inflammation; and in order to quiet the nervous system, the patient was put under the influence of opium for a few days in advance of the operation. We can see here the influence of Alonzo-Clark treatment of peritonitis: if large doses of opium would cure peritonitis, smaller doses would prevent. And so, in

order to head off the disease, of which everybody stood in holy terror, the opium was given before the operation was commenced.

Dr. Peaslee was the first to perform drainage, which he did as early as 1855. He passed a catheter through the vaginal wall into Douglas's cul-de-sac at the time of an operation, and left it there, corking the end. Septic symptoms supervening, he removed the cork, and allowed the fluid to come away, and followed it by copious injections into the peritoneal cavity of salt solution, and later by a weak solution of chlorinated soda. He published a paper on the subject in 1870. Thomas immediately took up the idea, following Peaslee's plan of putting a linen tent into the lower angle of the wound. Soon after this the idea of a drainage tube came from Koeberle of Germany. Thomas immediately began its use.

I remember very well the first drainage tube (1871), which was an old-fashioned, hard-rubber vaginal syringe, an inch in diameter, with four holes at the round end. This was introduced on the second day, the tent of cloth which had been placed in the lower angle of the wound the day of the operation, being removed.

Dr. Thomas also followed Peaslee by washing out the abdomen in a septic case, after the operation, using a solution of hyposulphite of soda. As early as 1871, he washed out the abdomen before closing the wound. Antiseptic ideas were then just beginning to dawn. Carbolic acid had just been discovered, and Lister was making his first experiments in what we now call "Listerism," experiments which were destined to revolutionize surgical methods, and to make the name of Sir Joseph Lister one of the greatest in the record of the benefactors of the race.

Although, as already mentioned, drainage was used before Sims began to do abdominal work, it was his paper, published in 1872, which really popularized drainage in abdominal cases.

Dr. Thomas, up to 1870, had had twenty-seven ovariectomies, and was only excelled by one other operator in New York, namely, Dr. Peaslee, who had had twenty-eight. Sims, who never made a great name as an abdominal surgeon, had had only twelve. It must be remembered that at this time all other forms of abdominal surgery were unknown and almost undreamed-of. I remember very well when Pean's book came out, about 1871, detailing the histories of a large number of fibroids that had been successfully removed, that Dr. Thomas expressed very grave doubt as to the truthfulness of the histories.

In those days the after-treatment of the cases was made very much more difficult, and the convalescence very much slower, by the method of treating the pedicle. While McDowell had used the ligature, dropping the pedicle, and had done so successfully, others seemed to be afraid of following his example. The great

doubt was as to what would become of the piece outside of the ligature. This, it was feared, would die, and poison the patient. Many of the deaths in the early cases were attributed to this cause. To overcome this difficulty, various plans were suggested. Baker-Brown used the cautery, and, as Mr. Tait pointed out, had he lived, no doubt abdominal surgery would have been advanced many years; for, although we cannot help acknowledging an immense debt as due to Sir Spencer Wells, still we cannot deny that he kept back ovariectomy and abdominal surgery by his energetic advocacy and use of the clamp. His plan was to clamp the pedicle, leaving it on the outside, the abdomen being closed tightly around it, the clamp preventing it from falling in.

Dr. Thomas was a bold and brilliant operator, a great diagnostician, and full of invention and resources. His record after these early years is well known, though he came a little too late to reap the full advantages of modern abdominal surgery. To my association with Dr. Thomas in those early days I must attribute my interest in this branch of medicine, and, to a great extent, my success. To no man, living or dead, do I owe more than to him. In fact, had it not been for Dr. Thomas, I should not have held my present positions, as it was by his influence that I became Dr. White's successor and a resident of Buffalo. Dr. Sims, although I knew him well and have seen him do some plastic work, I never had the pleasure of seeing open an abdomen. Dr. Peaslee I also knew well, but never saw him operate.

In those days the New York Obstetrical Society was the scene of many exceedingly interesting discussions. Abdominal surgery and gynecology were making rapid strides in advance. Sims, Peaslee, Thomas, and Emmet were the four men who have done more for gynecology than any Americans who have ever lived. They were then making rapid advances, and in the Obstetrical Society the new ideas were proposed and weighed and discussed, to be afterwards tested at the bedside and on the operating table, and the results reported back to the Society. I was secretary for a number of years, and had the great advantage of being obliged to take down these discussions. I am sure that this was of great benefit to me, as it fixed in my mind a great many facts which I probably should not otherwise have learned.

Besides these greater lights, Noeggerath, whose name is well known as the discoverer of latent gonorrhea; Jacobi, still a Nestor in the profession; besides some of the younger men, who have since made name and fame, were active members of the Society.

Buffalo took a prominent part in the early days of abdominal surgery. Drs. James P. White and Julius Miner were both pioneers. Dr. White probably did a hundred ovariectomies during his life, about 60 per cent. of which recovered, as far as I can

learn. Dr. Miner never did so many, but he originated a principle which has made his name to be mentioned wherever the history of ovariectomy has been spoken of—he originated the idea of enucleation. This I had seen done by Dr. Thomas, but had never practised until I did my first ovariectomy in Buffalo.

My first case was done in Hartford, Connecticut, in 1879. The patient was a poor negress. I had to pay the nurse myself, and, as she lived four miles in the country, in a poor little farmhouse, I had to hire a horse each time I made a visit. As you can readily imagine, I did not make a fortune immediately out of the case. Still its effects on my future were greater than were at first apparent. The event was a great one, and my friend, Dr. Munde, came all the way from New York to assist me. He had never operated himself, nor had anyone else present even seen an ovariectomy. I found a dermoid cyst so adherent that I could not get it all out. I therefore cut off all I could get loose, and sewed the edges of the remaining portion to the edges of the abdominal wound. Two glass drainage tubes were used, one being put into the sac and the other into the abdominal cavity. The patient convalesced very slowly, and required many visits. I estimated that the case cost me \$50. Still it paid, for it gave me experience, and allowed me to say that I was an operator—great advantages when the call came to go to Buffalo.

To illustrate the fear which the early ovariectomists had of the peritoneum, I remember very distinctly a case which came to me a number of years ago. She had a large fibroid tumor and a tremendous ventral hernia. She told me that she had had an ovarian tumor, which had been removed by Dr. Miner, the first successful operation that he had ever done. She showed me a copy of an account of the operation, published in the *Buffalo Medical Journal* at that time. In this article, Dr. Miner attributes his success to the fact that he did not pass his stitches through the peritoneum, but only through the skin and fat. This, while it does not explain the success of the operation, certainly explains the ventral hernia. I removed the fibroid, and sewed up the hernia, and sent the woman home cured.

Thus far I have spoken only of ovariectomy; but it is quite natural that the opening of the abdomen for the removal of ovarian tumors should have led to the same procedure for other purposes. In 1876, Dr. Robert Battey, of Rome, Ga., read a paper before the American Gynecological Society, on "The Extirpation of the Functionally Active Ovaries." He had performed his first operation in August, 1872. In 1879, Mr. Lawson Tait announced that he had done a similar operation, claiming priority over Battey. Prof. Hegar, of Freiburg in Germany, published in 1878 a paper on "The Castration of Women," his first case

having antedated Battey's by a month. After the publication of these papers, the indications for opening the abdomen were very quickly widened, and the operation took firm hold upon the profession, being performed by operators all over the world; and at that time we may say that abdominal surgery, other than ovariotomy, had its origin.

I first removed the ovaries, March 11th, 1880, in Hartford, Conn., for a fibroid tumor. The first operation for the removal of the ovaries which was done in western New York, was performed by the late Dr. G. C. Clark, of Niagara Falls, 1882. I had the pleasure of assisting him; the operation was perfectly successful.

My first operation in Buffalo for the removal of the ovaries was in November, 1883. On March 4th, 1884, I did my first resection of intestine; likewise the first that was done in Buffalo. In October of the same year, I removed a large fibroid tumor by supra-vaginal hysterectomy with the clamp. The woman is still living.

Although I did many operations for the removal of ovaries and fibroids from that time on, it was not until February, 1888, that I removed the first pus tubes. After this, the indications for operations and the number of cases increased rapidly; but I did not meet with a case of extra-uterine pregnancy until 1890. I operated on four during that year. As I was almost the only operator practising abdominal surgery in Buffalo then, these were doubtless the first operations of their kind which were done there.

We thus see that abdominal surgery is of very recent development, the greatest growth and extension of the operation having taken place in the decade between 1880 and 1890. It may now be said to be nearly perfected, and, except in operations on the gall-bladder and the stomach, we cannot look forward to many more advances.

What has made possible the great successes of modern abdominal surgery? Two things will at once come to the mind of each of you—anesthesia and antisepsis. Without these there could have been no development. Although the early operations were done without anesthesia, the operations now undertaken would be impossible under similar conditions.

Nor is antisepsis—or, perhaps, more strictly speaking, asepsis—any less important. The mortality rates of the pioneers are often frightful to contemplate; and only where life was directly threatened, as in ovarian cystic disease, were operations warranted. So recently as 1880, the writer collected all the known cases of oophorectomy—150, with a mortality of 20 per cent; and in 1884, Bigelow collected 359 hysterectomies for fibroids, with 58 per cent. mortality. Now all this is changed, and we

open the abdomen, even in comparatively simple diseases, with perfect confidence in the result, as far at least as sepsis goes. So much has been accomplished by Lister, Pasteur, and their co-workers.

But, after all, is it not to the American workers that a very large share of the mead of praise is due? Who have done more than McDowell, Nathan Smith, the Atlees, Kimball, Miner, Sims, Peaslee, Thomas, Robbs, Battey, Sands, McBurney, and Bull—to say nothing of the men of our own day, who have improved, extended, and perfected the work of their predecessors? Certainly America has a right to be proud of the credit of originating and perfecting this important branch of surgical work. Not only did ovariotomy originate here, but hysterectomy for fibroids was first done by Kimball. Peaslee and Sims originated drainage; Battey first removed diseased ovaries; Willard Parker did the first operation for disease around the appendix; while Sands, McBurney, Senn, and Wier were the pioneers in appendectomy. Bull did the first operation for bullet-wound of the intestines; and Rogers was the first to advocate the operation for ruptured tubal pregnancy. Kimball's lead in removing fibroids was followed by many, and was so perfected by the work of Stimson, Polk, Baer, Pryor, and others, that it is now known as the "American operation." Robbs was the first to do the modern operation of cholecystectomy, while the genius of Sims had a most important influence on advancing this particular branch of surgery.

But I need not add to the list. It is recent history and familiar to all students of contemporary literature.

When we look back and see what has been accomplished, it seems almost miraculous—all fear of the peritoneum gone; sepsis nearly banished, and scarcely an organ in the abdomen which has not been successfully attacked and removed. Liver, gall-bladder, spleen, stomach, intestines, kidney, uterus, tubes, ovaries, bladder—all have yielded to the surgeon's knife, and their possessors relieved of serious or fatal diseases. It is a proud record. Little did McDowell think, when he took up the knife to make his first abdominal section, to what it would lead, and of the years of agony which would be relieved and the thousands of lives saved. All honor to the men who have done this work. Their names should stand higher in the roll of fame than those of generals and conquerors. They have worked to relieve pain and suffering, and to save life, while the soldiers accomplished their ends only through the infliction of measureless agony, and the sacrificing of countless lives.

SOME BUSINESS ASPECTS OF MEDICAL PRACTICE.*

BY DR. N. A. POWELL, TORONTO.

Mr. President and Gentlemen,—In all the twenty-three years' existence of this association, the subject of the financial results of medical practice has never received formal consideration. When this fact was innocently mentioned by me a short time ago at a meeting of your committee on papers and business, that puissant body passed an order-in-council making me responsible for the presentation of this question before you. In spite of my objections and my suggestion of others for the honor, the committee next found a place for my name on the preliminary programme. When it so appeared, a certain person, whose advice I often receive, and perhaps not quite so often adopt, enquired with airy sarcasm if the chances for one's being selected to read a paper before the O.M.A. was in inverse proportion to one's knowledge of the subject to be taken up. I side-stepped her question then, but in the privacy of our closely tyled session I freely admit that, like certain medical examiners we have known, I may ask questions for which I have no answers ready.

For more than a quarter of a century I have been watching the course of medical men in practice, and trying to ascertain the causes of complete or partial failure in those who might reasonably have been expected to have been successful. Many die leaving no provision for those dependent upon them, others become medical derelicts, floating half-submerged, useless to themselves or to the world, and a positive danger to all who approach them unguardedly. A third, and always a larger, class have simply been disappointments to all who, in earlier years, had builded hopes of success for them. I present to you no statistical study, but give you instead certain clinical impressions, and shall ask how these accord with what has fallen under your own notice in watching the drift of medical life.

When I first entered practice I think it could be safely said that the larger proportion of those who did not succeed owed their failure to the over use of alcohol. That is not so to-day; the profession to-day is moderate in the use of liquors, as a result of increasing self-respect and self-control; misuse of them is, in consequence, a factor having far less importance than it had even a few years ago. The doctor who now drinks to excess cannot keep the pace, and must go down and out more rapidly than of old.

* Stenographic report of an address delivered before the Ontario Medical Association, Toronto, June, 1903.

In this country twenty-three may be taken as about the average age for entering practice, and fifty-three as the age of death for physicians as a class. This gives us thirty years as a period within which success is to be won or lost. The time and money expended in obtaining an education and gaining a practice will represent not less than five or six thousand dollars. Since most Canadians are comfortably poor at the start, or at least are free from the paralyzing influence of wealth, we may estimate that it will take four years in the country and eight in the city for the average graduate to have cleared off all arrears of debt and reached a self-supporting basis. The modern physician, it must also be remembered, is a highly evolved individual, with tastes that must be satisfied, and needs that must be met, in addition to the ordinary living expenses of himself and of those dependent upon him. Such provision for age and sickness as every prudent man sets about making must also be taken into account.

It has been said by some one that for an ideal practitioner there are three requisites: First, he must be a thorough gentleman; second, he must be a thorough physician; and, third, he must be a thorough business man. I believe that the third is the attribute most frequently lacking, and in this lies the cause of most failures.

Let me ask your attention to a few points which appear to suggest the cause of some failures. One difficulty our craft meets as many others are meeting it—the demand for first-class pay by those only able to do third-class work. That is the trouble in all other Unions as well as in ours; however, we have no walking delegate to come around and say, “This man who has made a botch of the case must be retained. You shall not discharge him and employ a better man in his place.” (Laughter.)

I think it is bad business for a physician in general practice, making an income of, we will say, over \$3,000 in the country, or \$4,000 in the city, to attempt to be his own book-keeper. His time is, or ought to be, too valuable for such work. If he tries to do so he will have to take the time either from his patients, or from his own needed rest and recreation. The best book-keeper he can possibly have is the one who has shown either that she had sufficient confidence in him or that she had sufficient confidence in her ability to manage him, to have married him. (Laughter.)

Year by year the world's work is passing, in larger and larger proportion, into the hands of women. They have long had more than a working majority in our churches. Some one puts it this way:

“ In the world's broad field of battle,
In the bivouac of life,
The average Christian soldier's
Represented by his wife.”

I do not say that this is right, but one cannot deny that it is so. Personally I am in accord with George Ade when he says, "It is a poor plan for a man to expect to slip through St. Peter's turnstile on Ma's ticket. (Laughter.) But no one else can take the same interest in a physician's books as the right sort of a wife—if only she be trained and trusted."

Accounts more than six months old in the city are far better handled by a collector—an honest, kindly, and tactful man—than by the practitioner himself. Such a one collects money which would otherwise never be obtained, and more important still he helps to weed out the people who are able to pay and won't—always the most unreasonable and exacting of patients. In the country it is a most valuable plan to try and get all accounts of a year's standing closed by notes. This will seldom be objected to if the notes are drawn, "without interest if paid when due; otherwise, with interest, until paid." The addition of interest hurries up the payment. I did some years of country practice, and without having recourse to the courts, excepting once to vindicate a principle, I was able to collect 92 per cent. of all accounts on my books—a fair and reasonable proportion. Knowing the circumstances of one's patients, the charges can be made right to start with, and discounts never given excepting on account of poverty.

Another thing, in my opinion it is bad business for a man to neglect his correspondence, or to sit up late into the sleeping hours with it and his other writing, when by the combination of a card index system of case-histories and chest charts, a vertical filing system for correspondence, and all other records, a type-writing machine, and a stenographer coming in for a few evening hours each week, he can keep his writing not simply up to date, but up to the hour. So few physicians seem to appreciate the value of such modern aids to rapid and accurate work that I have thought it worth more than a passing reference. The necessary outlay is almost trifling, and by such a combination one is aided in obtaining that *maxima pars eruditionis*, which may be taken to mean the art of knowing where any desired information can be at once found. I had a compliment paid me along this line recently: two friends were in consultation. One made an observation, and the other asked, "How do you manage to carry such things in mind?" The other replied: "I do not try to do so. When I want a thing I 'phone Powell, and he looks it up while I hold the line."

When a man has within him the potentiality of success *without* lodge practice, I believe it is bad business to ever touch lodge practice. (Applause.) The late Dr. George Wright, a conscientious man in practice if ever there was one, said to me in an

almost pathetic way, "If I had only left lodge practice severely alone, and given the time it took to study, and to cultivating the practice I wanted to keep, it would have been far better for me." As a rule we get the value we challenge for ourselves, and lodge practice tends to lessen a man's fee-earning power and to handicap his future. Granting that there may be present an urgent need for keeping the pot boiling, if this is done by using lodge practice as fuel, it will, in the long run, prove even more expensive than coal did last winter.

It is bad business not to be, and to keep, good friends with our medical neighbors. Some are not easy to live with; this for the reason that lineal descendants of Ishmael, of Ananias, and of Caliban, occasionally drift into the medical profession, and make trouble for us. After differences, they are ready to make up and bury the hatchet—but they take care to leave its handle sticking out. (Laughter.) No honorable physician can fight with their weapons; he would have no better chance than a clawless cat in Hades. Perhaps the best way is to strive for that height of calm philosophy which will enable one to consider the annoyances they cause, as being purely educational.

Every medical man needs and should have one or more fads. How shall we define a fad? We must make the attempt since Plato has told us that there can be no rational discussion without a definition. Fads, according to my friend, Dr. J. L. Davison, are "mental antitoxines which overcome the poisons generated by cerebral over-activity." (Applause and laughter.) The best of these, in my judgment, are shooting, fishing, photography, and canoeing, but a score of others may be named for second choice. Even that refuge for senile decrepitude known as golf has a field of usefulness. Some of my friends, infected with the virus of this game, seem to think its field is a prairie.

It is bad business for a physician to go without a fairly long annual, and a number of week-end, or other interstitial, holidays. No grass growing under his feet means only too often an early crop growing over his upturned toes. From labors so exacting and imperative as his, duty to himself, to his family, and to his patients, requires that he should take the prescription he so often gives to others, and should seek rest and change. His holidays should be arranged for, insisted on, and always taken. Our great dramatist has said that—

"Universal plodding poisons up
The nimble spirits in the arteries."

Happy the man who heeds the warning, and for whom, as Thoreau said, "The woods are full of solicitations."

It is bad business, it seems to me, to drop behind the procession for want of a good working library. Two or three good journals are absolutely necessary. In addition to these the purchase and right use of the latest and best work, first in one specialty, and then in another, will help wonderfully to keep a man out of the ruts. Now, what do we find in the office of the average physician, let us say, down in Kentucky? Things are better here, of course. If there were any Kentuckians here I would say, down in Tennessee. Out-dated text-books, journals bound up and never opened after they come back from the bindery, and subscription sets forced by glib-tongued agents upon their unfortunate purchasers. Only this and nothing more! What wonder that such a library, so-called, should become a factor in the failure of its owner rather than an aid to his success.

Trying to do modern surgery with an archaic outfit, or to do modern practice in offices unattractive, inconvenient, miserably equipped, dirty, disagreeable, and depressing, are causes tending strongly towards failure.

Let me ask a plain question: Is a man honest with himself or with those who trust him, when he attempts serious surgical work with outfit and preparation inviting disaster? If stinginess, and not poverty, has limited the equipment, how grave is the responsibility. Look, if you will, into the ordinary obstetric satchel! Is it ready for the conducting of an aseptic confinement, and for meeting all emergencies of child-birth? Let each one of us, when he sits alone with his conscience, and seeks for the cause of a sepsis, answer this question.

Three or four other points occur to me as being elements in failure: want of thoroughness, want of decision, want of energy, and want of tact. The first of these runs through the work of many a man, and is a terrible handicap. Want of decision comes often from unduly considering the effect of what should be done upon one's immediate prospects in practice. It may prevent the right thing being done for a patient at the right time. Arnold said of Sophocles: "He saw life steadily, and saw it whole." I think the physician's attitude should be: determine what is right, and then go ahead regardless of immediate consequences, and looking to the whole life rather than to the present hour. The wise counsel given to the hero Sigurd in the Norse epic may be recalled: "Wilt thou do the deed, and repent it? Thou hadst better never been born. Wilt thou do the deed and exalt it? Then thy fame shall be outworn. Thou shalt do the deed and abide it, and sit in thy place on high, and look on to-day and to-morrow as those that never die."

Want of energy—in other words, laziness—is often constitu-

tional and incurable. The world, Emerson tells us, belongs to the energetic; certainly, no lasting success is to be won except by hustling hard work. But the energy—the push—must be rightly directed. It is the hits that count—not the shots fired. When a small boy, in trying to get through a crowd, I found if I proceeded straight ahead I could make but little progress, but if I put one shoulder forward, and used it as a wedge, I got to the front and saw the circus. In war and in peace, in medicine and in surgery, if one studies the lines of least resistance and follows these he is most likely to succeed. Some time ago a circular was sent to the successful men in a certain large city asking, Why is it that not more of young men succeed? One answer read, "Because there are so many of them looking for white shirt jobs." There is, however, such a thing as pushing business too far. Quite recently I saw the advertisement of a photographer which read: "Babies reduced to \$2 per dozen." We cannot hope to meet a cut like that! (Laughter.)

The next feature to which I refer is want of tact; tact is not the right word, but it comes near it. I mean the discretion which can tell the best thing to say or do, and the best way to say or do it. In theological circles they have a better word than that. An old darkie preacher said, "Brethren, what we want is sanctification." (Laughter.) Devotion to a patient's interests, and good judgment in advancing these interests, would mean about the same thing.

Please do not consider from what I have said that I have wished to convey the impression that success can be measured by the dollar sign. The commercial practitioner thinks of the money first. The true professional practitioner thinks first of his patient's interest, and then he thinks of his own proper remuneration. He has got to be paid for his work for he has got to pay others. He has got to protect those at home that he loves, or that he ought to have at home to love. (Laughter.) The love that does not protect its object had better be called by some other name.

I am willing to admit this, that no medical man who is a mercenary man, whose governing principle is mercenary, ever reaches the highest success in medicine, but a man who does not respect himself and make proper collections for the work he is doing, is not doing his duty. A wise man that I knew once used to say, "The quacks get rich, but they go to hell." (Laughter.) My own investigations have not been carried as far as that! (Laughter.)

Character—that all-important thing for every one—consists in a man's steadily pursuing the things for which he feels himself capable. What he loves to do he is likely to do well and

successfully. Supporting this view, let me conclude this rambling talk by quoting from Arnold's recently published note-books: "Arise, be going, count your resources, learn what you are not fit for, and give up wishing for it; learn what you can do, and do it with the energy of a man." (Applause.)

PHILADELPHIA has replaced the volunteer medical inspectors of schools with paid physicians. The schools are to be visited daily, and the visiting physicians receive salaries of \$750 a year.

THE Hawaiian Board of Health will undertake a campaign against mosquitoes. An epidemic of dengue is now in progress at Honolulu, and mosquitoes are believed to be the agent of its distribution.

CLEVELAND has opened a municipal sanatorium for consumptives. The building was formerly a smallpox hospital. About fifty consumptives were admitted when the renovated building was opened on July 1st.

IT is said that Sir Frederick Treves, the distinguished English surgeon who operated upon King Edward, will retire from practice at the end of July. As Sir Frederick is but fifty years old, it is suggested that he aspires to a parliamentary career, having exhausted the long list of medical honors.

MR. and MRS. HAROLD MCCORMICK have endowed a new medical journal to be known as the *Journal of Infectious Diseases*. Its editors will be Profs. Ludvig Hektoen and E. O. Jordan of the University of Chicago. The first number will be issued in the fall. The value of the endowment is \$125,000.

MR. JONATHAN HUTCHINSON, whose trip to the East for the study of leprosy has been widely chronicled, is more firmly than ever convinced that fish-eating is the most important factor in the causation of the disease. His views have not yet made a considerable impression upon the profession, but it is said that he has recently been addressing his argument to the general public, and with some effect.

GERMANY is to have a medical exhibit at the St. Louis Exposition. Prof. Waldeyer, of Berlin, is to have charge of it. All the prominent medical institutions, hospitals, and clinics will be asked to contribute, and special attention will be given to the various appliances, instruments, diagrams, etc., employed in medical instruction. The German manufacturers of surgical instruments and appliances, and of drugs and chemicals, will also be represented.

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

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Editorials.

THE RESTRICTION OF SMALL-POX.

As in 1882, when the Provincial Board of Health of Ontario was founded, so also at the present time, small-pox is the most important disease with which the Provincial health authorities have to deal. And so well has their work been done, that in twenty years there have been but 205 deaths from that disease in Ontario. (*Vide Report of the Board of Health for 1902.*) In the preventive campaign, vaccination has been, and is, of course, the most

important defensive weapon. As is well known, many people employed in shops, workshops, factories, etc., when called upon to submit to this operation object, because they fear a one or two weeks' "lay-off," for which they will not receive any remuneration. Then, in the case of school children, the trustees are rather reluctant to enforce the compulsory clauses of the Vaccination Act. To overcome the difficulties in regard to the unvaccinated condition of the school children, Dr. Hodgetts, Sanitary Inspector of the Board of Health, recommends that a regulation should be passed making it compulsory for public or separate school trustees to refuse admission to schools to any except vaccinated children, and to require certificates of secondary vaccination from all scholars over ten years of age. In regard to grown-up people, he suggests that all employers of labor should be subjected to a regulation, similar to one applicable to the Unorganised Districts of Ontario, which makes it illegal for an employer to hire an unvaccinated person. Regarding the vaccination of school children, it may be said that if such a regulation were passed and enforced its effects would certainly be far-reaching. It is very unlikely that children vaccinated twice in childhood would catch small-pox during the wage-earning period of life, so that the difficulty of enforced loss of time and the necessity of submitting to vaccination at an unwelcome period of life need not occur, as far as they are concerned. The suggestion is most valuable, and there can be no doubt at all that if such a regulation were made law, it would be an easy matter for the Provincial health authorities to control small-pox in Ontario, inasmuch as they would soon have a well-vaccinated population to deal with. Under the operation of such a law in Ontario, voluntary vaccination would become the rule, and enforced vaccination would, in a few years, be restricted in times of epidemic to unvaccinated travellers, young or old, and to other persons domiciled in Ontario, but who had not been schooled in this Province. It is likely, also, that the prompt passing of the aforesaid regulation would suffice, and that it would be unnecessary to pass the second suggested regulation, *i.e.*, making it an illegal act to give employment to an unvaccinated person. Not that the point is not well taken and that the requirement of the suggested regulation is not in the interest of the Public Health in Ontario; but that it might

prove a great hardship to workpeople, who, through no fault of their own, have not been vaccinated during school age, and who through such a technicality might be refused needed employment which they are otherwise well able to attend to. J. J. C.

ISOLATION IN CONTAGIOUS DISEASES.

THE practice of isolating cases of contagious diseases is receiving great development in Ontario, as it has been found to be an extremely effective method of doing away with, to a great extent, the risk of infection, together with the hardships and expense of an enforced quarantine at home. Thus in Ottawa, at the end of December, 1902, thirty-four quarantined houses contained 59 cases of scarlet fever, and there were, in the overcrowded old hospital in that city 48 cases, a total of 107 cases, while on April 19th, 1903, there were in the new isolation hospital 32 cases, and in thirteen quarantined houses 14 cases, a total of 46 cases, or a decline of over one-half. We learn from the 1902 Report of the Ontario Board of Health that such conveniences for the reception of contagious diseases have been provided in the following cities and towns of Ontario:

Toronto—Isolation Hospital managed directly by Local Board of Health.

Hamilton—Wards in General Hospital.

Kingston—Wards in General Hospital and Hotel Dieu.

Ottawa (1903)—Isolation Hospital managed by Local Board of Health.

London—Separate wards in General Hospital.

Galt—Isolation Hospital for small-pox, under management of General Hospital.

Guelph—Separate annex in General Hospital, and separate annex in St. Joseph's Hospital.

Mattawa—Separate annex, under management of General Hospital.

Brantford—Separate building, under management of General Hospital.

Port Arthur—Wards in St. Joseph's Hospital.

Belleville—Separate wards in General Hospital.

Brockville—Separate wards in St Vincent de Paul Hospital.

Collingwood—Separate buildings at General Hospital.

Peterborough—Nichol's Hospital and St. Joseph's Hospital (separate wards) under Hospital management contracted with by Local Board of Health.

Chatham—Separate buildings, under management of General Hospital, and separate buildings under management of St. Joseph's Hospital.

Stratford—No special wards.

Sudbury—Separate building of General Hospital and separate buildings of St. Joseph's Hospital.

Huntsville—Separate building of General Hospital.

Berlin—Isolation Hospital, under management of General Hospital.

This list includes all the hospitals receiving aid from the Provincial Government, which received cases of contagious disease up to September 30th, 1902. There have been, however, in various smaller municipalities temporary hospitals or tents, to which cases of contagious diseases have been removed.

The prevalence of small-pox has forced many municipalities to provide temporary hospital accommodation for such cases, and, in many instances, this has been done by means of strongly-made, double-walled tents, usually fifteen by thirty feet in size. Although objections were raised at first, yet the objectors have completely changed their opinions, and the canvas-walled hospitals have been found sufficient in every way to meet the wants of a city or township. Dr. Hodgetts, who has had considerable experience with such hospitals in his capacity as Provincial Sanitary Inspector, says: "As isolation hospitals they are suitable to rural districts, because of their portable character, and for the towns and smaller cities from the fact that when not in use, they may be stored away from the public view, while their small cost is another important point for Local Boards of Health to remember." Another advantage which will occur to most hospital physicians is, that a large cubic air space, so necessary in the treatment of contagious diseases, can be easily and cheaply obtained in the hospital tent, while experience has shown that, even in severe winter weather, the double-walled hospital tent can be warmed with a stove in a very effective and satisfactory manner.

Facility in cleaning, and in the removal of refuse, with cheapness in management and a host of other advantages will readily occur to people who know of the simplicity and comfort of camp life in tents in summer.

J. J. C.

LONDON MEETING OF THE CANADIAN MEDICAL ASSOCIATION.

It can safely be said that the meeting of the Canadian Medical Association, which took place in London last week, was quite a success. The attendance was splendid, nearly three hundred members being present, and though it might have been larger, yet what it lacked in that respect was made up by the very nice spirit of *bon camaraderie* which prevailed all through, and every one present seemed to thoroughly enjoy the outing. The President, Dr. Moorhouse, "did himself proud," and is to be heartily congratulated upon the manner in which he fulfilled his duties as President. The London profession left nothing undone to make the year's convention a success, and but added to their reputation gained when our National Society convened just ten years ago in the City on the Thames. We regret that, owing to the fact that our issue comes out within two days of the meeting being closed, it is impossible for us to give our readers the regular stenographic report of the proceedings, but we will make up for it next month. The presence of such men as Dr. Carstens, of Detroit, Dr. A. L. Benedict, of Buffalo, N.Y., Dr. Alex. Hugh Ferguson, of Chicago, Dr. T. A. McGraw, of Detroit, Dr. Geo. M. Gould, of Philadelphia, Dr. E. G. Wood, of Nashville, Tenn., and Dr. Geo. F. Butler, of Alma, Mich., added to the interest of the meeting materially. The unavoidable absence, at the last moment, of Dr. Matthew D. Mann, of Buffalo, whose paper we publish in this issue, was extremely regretted.

The President's address was, like the man himself, up-to-date and thoroughly practical, and we regret that it has, for reasons just stated, like the proceedings, to be omitted from this issue of the JOURNAL. The other addresses were alone worth the trip to London, and the papers were undoubtedly above the average. The entertainment of the visitors was well looked after, the trip to Springbank, London's pleasure resort, being particularly well managed, while the banquet at London Asylum was most enjoyable.

Seldom in the history of the Canadian Medical Association have the members been so pleasantly entertained as on Thursday, August 27th, when the well-known manufacturing pharmaceutical firm, Messrs. Parke, Davis & Co., took, as it were, bodily, the members in attendance at the London meeting, and with them as their guests, hurried, on a specially chartered vestibule train, to Walkerville and Detroit, there to enjoy an outing full of pleasure and profit, arranged by this firm, who are known as entertainers to the manner born.

In company with the firm's representatives, the party reached Walkerville about 10.30 a.m., and were shown at once through the Canadian Laboratory, located at Walkerville. This plant, which is only one member of a large family, is replete with every modern pharmaceutical device. Each department, under the charge of practical pharmaceutical chemists, is operated along lines which insure absolute fidelity to label, and the finished products are all that could be desired. Throughout the plant, the spirit of order and cleanliness prevails, and the firm is to be complimented on the ample manufacturing and office quarters for their Canadian home.

It was but a step from this laboratory to the dock, where, in waiting, was the new steamer *Owana*, chartered for the occasion. Boarding this beautiful boat, the party, for several hours, enjoyed the ride on Detroit's charming river, as well as on the dancing waters of near-by Lake St. Clair. A bountiful lunch was served on board, to the accompaniment of sweet music.

This but served as an introduction to the pleasures to follow, for as we steamed past Belle Isle Park, the buildings of Parke, Davis & Company's Detroit Laboratories came into view, and soon we were ushered into these mammoth establishments. Space will not allow a full description, but we can state briefly that in this plant, the 1800 employees seemed drilled as an army corps. Here the machines for manufacturing purposes are so perfect and wonderful that they can literally all but talk; here pills, tablets, fluid extracts, elixirs, specialties, etc., are manufactured in immense quantities.

If this seemed wonderful, the next step was even more so, because we next entered their new science building, which was recently erected and equipped at a cost of about \$200,000, repre-

senting this firm's contribution to science. In this building, no manufacturing is done, but the entire four floors are given to research work in chemistry, bacteriology, physiology, and pharmacology. An inspection of this building, an examination of the delicate and costly apparatus used in the various research work, was a revelation, and speaks well for the progressive spirit which is evident in this firm's plans and operations. No physician visiting this special building can leave without the highest opinion of the reliability and purity of the products bearing this firm's label, and silently the heart gives thanks that here is a place where, even in the midst of commercial surroundings, the spirit of commercialism is supplanted by that of purely scientific investigation.

Much could, and should, be said of the biological stables, where serums and vaccines are elaborated, but time will not allow. Suffice it to state, however, that the hundreds of horses and calves and the thousands of smaller animals, all in perfect health and condition, ensconced in a home that for cleanliness and aseptic surroundings could not be improved upon, are a sight well worth the visit, and if the buildings were carefully inspected, it would require hours to do them justice.

A trolley ride from the laboratories at the hour when the long shadows weave, giving to Detroit's wide streets and shaded boulevards an added loveliness, afforded the visitors a glimpse of this city's far-famed beauty. Arriving at the Russell House about 7 p.m., an elegant banquet was served, where the guests and host in post-prandial speeches had an opportunity to exchange greetings, and to wish the professions of medicine and pharmacy a brilliant future and a yet closer relation. Let us not forget to mention the beautiful electric sign on the City Hall, which blazed forth in white letters, the words, "Welcome Guests of Parke, Davis & Company," thus showing, if we did not already feel it in our souls, the good-fellowship that exists between our fraternity and the residents in the City of the Straits.

The outing, with its pleasures, is now with those who partook of this firm's courtesy, and in recalling, in the years to come, our meeting of 1903, nothing will stand out more prominently, nor more pleasantly, than our visit to the Laboratories of Parke, Davis & Co. We are sure such will be the feeling, and that

all can join in the beautiful sentiment of Thomas Moore, when he said:

“ Long be my heart with those memories filled,
Like a vase in which flowers have once been distilled,
You may break, you may shatter, the vase if you will,
But the scent of the roses will hang 'round it still.”

W. A. Y.

THE AMENDMENT TO THE ACT RESPECTING CORONERS AND ITS EFFECT UPON THEIR WORK IN THE CITY OF TORONTO.

THE Amendment to the Act Respecting Coroners, with the Regulations pursuant thereto (appearing on page 220 of this issue), which was passed by the Ontario Legislature at its last session have recently been issued, and have met, not only with the approval and support of the majority of the Associate Coroners, for whose convenience the law has been changed, but will fill a long-felt want, that has existed in the minds of the members of the Legal and Medical professions and the public.

The City of Toronto hitherto had no Coroner, the work being done by the Associate Coroners for the County of York, all of whom had equal jurisdiction—all having the full right to hold inquests in any part of the City or County, the man who first filed his warrant having precedence in any given case. As a consequence, complications occasionally arose, and this branch of the Department of Criminal Investigation seemed to be in danger of being overdone.

When a Coroner was notified of a sudden death, his information frequently came from a friendly member of “The Force,” a professional admirer, or an interested patient. If he wanted to show his appreciation of the favor thus forced upon him, he had at once to get his warrant filed at No. 1 Police Station, or he would find that other Coroners had friends also, and that, by the time he reached the station, a warrant had already been filed by someone else.

So “time became the essence of the contract,” and this led to such zeal on the part of *some* Coroners, that their Medical confreres, and even the public, thought that frequently unseemly and undignified haste was exhibited, and occasionally rather

unprofessional acts committed; and, incidentally, a large number of unnecessary and, at times, vexatious inquests were held

Nor was this all. There were those who evidently thought it well to have "a friend at court," even if it was only at a "Coroner's Court" and who saw no reason why they should not pick their own Coroner, if they required one. And so worthy institutions came to be looked upon with suspicion by the public, simply because the same Coroner invariably presided over all inquests held within their walls.

Some twenty years ago, the late Sir Oliver Mowat, then Attorney-General, seeing that there was an increasing tendency amongst certain Coroners and their medical friends who made their post-mortems, to look upon fees arising from inquests as a reliable source of income and perquisite of practice, introduced what is now known as Section 4 of the Coroners' Act, and which is still in force everywhere in this Province, except in the City of Toronto. By this clause every Coroner, to enable him to collect his fees, must, before issuing his warrant, make an affidavit that he had information that led him to think an inquest necessary. This worked very well for a time, but the constantly increasing appointments of new Associate Coroners made the competition for inquests so keen that there was no time to take the affidavit before the warrant for the inquest was issued.

These, and many other difficulties which have recently arisen in this connection, led a number of the Active Associate Coroners resident in Toronto to petition the Legislature last year to pass some amendment to the Coroners' Act, that would have the effect of rectifying matters, and of equalizing the work. The suggestion that the city be divided into territories, with a Coroner for each division was not practicable, as it would not lead to each Coroner getting his share. Nor would it have been by any means fair to have recalled all the commissions, and from amongst them, selected one or two men who should be made responsible for the whole city. The only suggestion that seemed to meet with the wishes of the majority was that some Crown Officer should be appointed, through whose hands all matters requiring investigation by a Coroner should pass, and that he should allot the work to the different Coroners. The difficulty now arose of finding some one to fill this office, who from his knowledge of these matters would

be acceptable to the Attorney-General's Department, the legal and medical professions, and the Coroners, without creating a new office.

With the rapidly increasing growth of Toronto, the work in the County Crown Attorney's office had so increased that it was not reasonable to ask him to add this to his other duties, besides which a certain knowledge of forensic medicine seemed to be required, and so the matter was left over for further consideration till this year.

The fact that matters seemed inclined to grow worse rather than better with the appointment of each new Associate Coroner, induced the Legislature to make the amendment asked for last year.

A senior Associate Coroner for the County of York has been made "The Coroner for the City of Toronto," and is to be paid by salary. His duties will consist in arranging for the holding of all investigations and inquests. All matters requiring investigation by a Coroner will be reported to him first, and he will divide up the work amongst the Associate Coroners, so that each one gets his fair share. He will only hold inquests himself when he is asked by the Crown so to do. There are two exceptions to this: (1) In all cases where death results from any form of railway accident, whether steam or electric railway, on any street or street crossing in the City of Toronto, the matter must be referred to the County Crown Attorney, and he shall decide who is to hold the inquest, and a formal inquest shall be held in all these cases. (2) The Coroner for the City of Toronto shall not act in any case in which death results from injuries inflicted by any railway, street railway, mine, manufactory, or other business in which he is interested, either as owner or part owner, or to which he holds the appointment of surgeon.

This, of course, is not new. Some years ago an amendment to the Coroners' Act was passed for this very purpose, and especially directs that in cases of death resulting as a consequence of the operation of any railway, street railway, mine, or other business venture where an investigation or inquest had to be held by a Coroner, the Coroner so acting should have no interest whatever in the matter. This was a very necessary amendment, particularly since electric railways have become so numerous, as there are

many Coroners, both in and out of Toronto, who are interested in, or employed by, railways, both steam and electric, mines, manufactories, and other forms of business, where large numbers of men and women are employed, subjected, perhaps, to great dangers. It would be gross injustice if the Coroner who was called upon to hold an inquest under these circumstances should have a monetary interest in, or be employed by the owners of, these works. The third clause of the new amendment makes this very definite and explicit.

Amongst the advantages gained by each Associate Coroner under the present arrangement, the following are to be particularly noted:

1. As an Associate Coroner, and, therefore, a medical officer of the Crown, the undignified position he recently held by reason of the competition which existed, has been wholly done away with.

2. His individual fees will be increased, as he will get his share of the work which was formerly done by the present Coroner for the city, as well as his share of what he formerly should have had.

3. He will be relieved from the necessity of sometimes straining his conscience (often unavoidable) by having to make an affidavit that an inquest was necessary when, as a matter of fact, he had not had time to find out whether one was absolutely necessary or not.

4. His hurried visit to No. 1 Station to file his warrant will no longer be required, as he can now hand it to the first policeman he meets, and ask him to file it at the nearest station, when next he passes there.

The Attorney-General's Department is to be congratulated by the public, as well as by the medical and legal professions, and the Coroners for the way in which matters have been arranged, and the well-tried precedent followed.

The City of Toronto is now placed in a very similar position with regard to Coroner's matters to that which exists all over Scotland. The Coroner for the City of Toronto holds practically the same position here as the Procurator-Fiscal does there, with this difference (and this is for many reasons a decided advantage over the Scotch law), that whereas in Edinburgh, for instance,

the Procurator-Fiscal, whose duty it is to direct the Coroners when and how to act, is a member of the legal profession, and who, therefore, cannot be expected always to see the full value of the medical points in any case, in the City of Toronto the man appointed to do this work is one of the oldest Associate Coroners, and one who has been entrusted by the Department of Criminal Investigation of this Province with the work of Medical Expert for the Crown in most of the important criminal cases which have occurred during the last twenty-five years. W. A. Y.

THE AMALGAMATION OF THE MEDICAL FACULTIES OF THE UNIVERSITY OF TORONTO AND TRINITY UNIVERSITY.

At the time of going to press we are unable to state positively that the amalgamation of the Medical Faculties of the University of Toronto and Trinity University is an accomplished fact. Both Medical Faculties are quite willing to unite, and it may be looked upon as almost certain, that they will enter upon the work of medical teaching next October as the United Medical Faculty of the University of Toronto. A strenuous opposition has, however, been made to the federation of Trinity University with the University of Toronto by a large number of the graduates of the former university. The question of federation was rather hotly discussed at a public meeting of the graduates of Trinity University, held last July, at which the opposition succeeded in carrying a resolution to the effect that further action should be postponed until the meeting of the Trinity University Alumni Association, which is to be held on the 11th of the present month.

In spite of this opposition there appears to be strong reason to believe that the two universities will unite, and we herewith submit the official list of members, who have been selected from the two Medical Faculties to fill the different positions on the teaching staff of the new Medical Faculty of the University of Toronto, together with certain information relating thereto.

ANATOMY.

Professor of Anatomy and Director of Department, A. Primrose.

Associate Professor of Anatomy, H. W. Aikins.

Demonstrators of Anatomy, C. B. Shuttleworth, C. P. Lusk, and E. S. Ryerson.

The Assistant Demonstrators of Anatomy in the Medical Faculty are to be nominated by the Professor of Anatomy and Director of the Department for appointment from year to year. The Professor of Anatomy is to have the control he now exercises over the annual appointments of the Assistant Demonstrators.

In the case of Dr. Primrose, it is recommended that he should receive for his teaching in Anatomy a minimum salary of \$2,000 a year, with a larger sum if the finances should warrant it, but he is to receive no remuneration for his duties as Professor in Clinical Surgery.

SURGERY.

Professors of Surgery and Clinical Surgery, I. H. Cameron and F. LeM. Grasett (both these Professors to be members of the University Council).

Professors of Surgery and Clinical Surgery, G. A. Peters and L. Tesky.

Associate Professor of Clinical Surgery and Clinical Anatomy, G. A. Bingham.

Associate Professors of Clinical Surgery, A. Primrose, N. A. Powell, W. Oldright, H. A. Bruce and F. N. G. Starr.

In charge of Orthopedic Surgery, C. L. Starr.

Demonstrators of Clinical Surgery, W. McKeown, C. A. Temple, A. H. Garratt, C. B. Shuttleworth, T. B. Richardson and J. F. Uren.

The Professors of Surgery and Clinical Surgery are each to give the same amount of instruction on the basis of 72 lectures in Clinical Surgery and 20 lectures on Didactic Surgery, and they are to have the same remuneration. The Associate Professor of Clinical Surgery and Clinical Anatomy is to receive the full pay allowed a Professor.

PATHOLOGY AND BACTERIOLOGY.

Professor of Pathology and Bacteriology and Curator of Museum and Laboratories, J. J. Mackenzie.

Professor of Clinical Pathology, H. B. Anderson.

Associate Professor of Pathology and Bacteriology, J. A. Amyot.

Demonstrators of Pathology, G. Silverthorn and C. J. Wagner.

Assistant Demonstrators of Pathology, W. H. Pepler, H. G. Parsons, and H. M. Crawford.

Laboratory Assistant, T. D. Archibald.

The Professor of Clinical Pathology is to give 25 lectures on Gross Pathology, and also to conduct post-mortem examinations, each post-mortem examination to rank as one lecture. The Assistant Demonstrators are to be appointed on the recommendation of the head of the Department from year to year.

The Professor of Pathology and Bacteriology and Curator of Museum and Laboratories is to receive a minimum salary of \$2,000 per annum.

MEDICINE.

Professor of Medicine and Clinical Medicine, A. McPhedran.

Associate Professors of Medicine, J. T. Fotheringham and R. Rudolf.

Professor of Clinical Medicine, J. L. Davison.

Associate Professors of Clinical Medicine, Allen M. Baines, W. P. Caven, W. B. Thistle, J. T. Fotheringham, A. R. Gordon, R. J. Dwyer and H. B. Anderson.

Associates in Clinical Medicine, G. Boyd, R. Rudolf, G. Chambers, F. Fenton, H. G. Parsons, H. E. Anderson, and W. Goldie.

PREVENTIVE MEDICINE.

Professor of Preventive Medicine, Didactic and Clinical, C. Sheard.

The duties of the Professor are to consist of not more than 25 Didactic and not less than 25 Clinical lectures, including the exanthemata.

The University to be responsible for providing the necessary facilities for Clinical instruction.

MATERIA MEDICA AND THERAPEUTICS.

The Sub-Committee recommend that the Department be re-organized and that the teaching be apportioned between Professor J. M. MacCallum and Dr. J. T. Fotheringham, Professor MacCallum to lecture on Materia Medica, Pharmacology and a portion of Therapeutics, the remainder of the subject of Thera-

peuties to be given by Dr. Fotheringham in addition to his duties in Clinical Medicine. As soon as the University is in a position to pay for a Professor of Pharmacology it is recommended that the department be reorganized.

Professor of Materia Medica, Pharmacology and Therapeutics, J. M. MacCallum.

OBSTETRICS AND GYNECOLOGY.

Professor of Operative Obstetrics and Gynecology, J. A. Temple.

Professor of Obstetrics, A. H. Wright (also to be a member of the University Council).

Professor of Gynecology, J. F. W. Ross.

Associate Professor of Obstetrics and Pediatrics, H. T. Machell.

Associate Professor of Pediatrics, A. M. Baines.

Associates of Obstetrics, K. C. McIlwraith and F. Fenton.

OPHTHALMOLOGY AND OTOTOLOGY.

Professors of Ophthalmology and Otology, R. A. Reeve, G. S. Ryerson and G. H. Burnham.

Associates of Ophthalmology and Otology, C. Trow and J. M. MacCallum.

LARYNGOLOGY AND RHINOLOGY.

Professor of Laryngology and Rhinology, G. R. McDonagh.

Associate Professors of Laryngology and Rhinology, D. J. G. Wishart and Geoffrey Boyd.

SANITARY SCIENCE.

Professor of Sanitary Science, W. Oldright.

TOXICOLOGY.

Professor of Toxicology, W. H. Ellis.

JURISPRUDENCE.

Professor of Jurisprudence, N. A. Powell.

MENTAL DISEASES.

Extra-Mural Professors, N. H. Beemer and W. H. Mitchell.

It was agreed that the Assistant Demonstrators in Anatomy from Trinity Medical College be appointed for one year to the same position in the United Faculty, after which time all the junior appointments in the Department of Anatomy will be sub-

ject to the same conditions that now govern the appointments of Demonstrators in Anatomy.

The Professor of Anatomy is to have the control that he now exercises over the annual appointment of the Assistant Demonstrators.

Dr. W. T. Stuart is to be assigned duties in the teaching of Chemistry in the Medical Faculty, for which he is to receive the sum of \$500 per annum, and he shall have the title of Associate Professor of Medical Chemistry in the Medical Faculty.

It is understood and agreed that the death, resignation, or removal of any Professor or member of the teaching staff does not necessarily, *ipso facto*, create a vacancy in the staff.

The non-matriculated students of Trinity Medical College shall be allowed two years from the date of federation for matriculating in Trinity University, under the regulations in force in that University at the time of federation. It is a condition of this amalgamation that the powers of Trinity Medical College shall be suspended during the continuance of federation.

The following resolutions were passed unanimously as matters which should be urged as strongly as possible upon the Government for immediate action.

(1) That in every hospital in the city of Toronto, subsidized by the Province, clinical teaching should be carried on.

(2) That it is of great importance to the success of the united Medical Faculties that provision should be made by the Government for extinguishing the charter and acquiring the property of the Toronto School of Medicine.

(3) That an assurance should be obtained from the Government that it is understood that it is its policy that no other School of Medicine should be incorporated by Act of the Legislature or otherwise.

J. J. C.

NEW UNIVERSITY BUILDINGS WILL BE OPENED WITH GREAT ECLAT ON OCTOBER 1st.

THE new university buildings for physiology, pathology, medicine and surgery are now being prepared for occupation next month by the various departments concerned, and the formal opening, for which arrangements are being made, will take place on

October 1st. The inaugural proceedings promise to be of great interest, and a number of distinguished teachers in physiology, pathology, medicine and surgery have already accepted the invitation to be present and deliver special addresses.

Amongst these may be mentioned Prof. C. S. Sherrington, F.R.S., of the University of Liverpool, a physiologist of the first rank; Prof. Wm. Osler of Johns-Hopkins University; Prof. Welch, also of Johns-Hopkins University, the leading American pathologist; Prof. Keen, of Philadelphia, president of the American Medical Association; Prof. C. S. Minot of Harvard University, the propounder of the "unit" system of laboratory construction, the system followed in the arrangements of the new buildings, and Prof. Bowditch, also of Harvard, the veteran American physiologist. Prof. Sherrington is coming from Liverpool specially for the occasion, this being his second visit to Canada and Toronto. It is expected that all the leading universities of the United States will be represented by delegates, and consequently the gathering will be of such a character, from the scientific point of view, as to make it a memorable one.

The occasion is, from another aspect, to be a notable one, for it is to formally inaugurate the united or amalgamated medical faculties, and henceforth, with the exception of the Medical College for Women, there is to be but one medical teaching institution, and that only as the Medical Faculty of the University of Toronto. It is exactly fifty years ago that the first medical faculty of the University of Toronto was abolished by Act of Parliament. The new situation is certain to make Toronto one of the few great centres of medical education on this continent.

EDITORIAL NOTES.

[For the first five Editorial Notes we are indebted to the report of Dr. Gottschalk which appeared in *La Presse Medicale*, Paris, June 24, 27, and July 1st, 1903.—ED.]

The Causes of Deaf-Mutism.—In the section devoted to Otology at the Madrid International Congress of Medicine, Dr. Castex, of Paris, read a report which showed that, in the first place, but little reliance is to be placed on the statements of parents who deceive themselves as to the future of their children, or are afraid to acknowledge family

blemishes, as well as circumstances which are commonly present in the antecedents of all such children. Acquired deafness should not be confounded with the congenital variety, which is more frequent. All conditions which diminish the vigor of the human organism, especially the nervous system (bad hygiene, consanguineous marriages, syphilis, alcoholism, injuries to the mother during pregnancy, etc.) may cause congenital deaf-mutism, in which respect the auditory apparatus exhibits a peculiar fragility. Anything which attacks the deeper parts of the auditory apparatus (meningitis, infectious disease, traumatism) may induce acquired deaf-mutism. In all cases this infirmity is incidental and only slightly due to heredity, a circumstance which should encourage efforts in preventive therapeutics. Dr. Schmiegelow, of Copenhagen, co-reporter, who had examined the question of deaf-mutism from the standpoint of functional acoustics, concluded that deafness causes deaf-mutism if it is congenital, or if it appears before the eighth year. Instances are, however, on record of children who have become mutes after losing their hearing at sixteen and seventeen years of age. When the deafness is incomplete, it is necessary to take into consideration not only the degree of deafness and the child's age, but also its intelligence and the method of education pursued. If special precautions are not taken in its education, and if the remains of its hearing are not put to good use, Dr. Schmiegelow admits that a hardness of hearing, such that the limit of distinct audition is equal to or less than 7-87 inch for the ordinary voice, will produce deaf-mutism.

Cancer of the Womb.—Dr. Lapthorn Smith, Montreal, read a paper on "Cancer of the Womb" in the section on Gynecology and Obstetrics of the Madrid International Congress of Medicine. He did not favor the opinion that cancer was due to heredity, but, on the contrary, believed it was very contagious, a notion which he considered of great importance as far as the prevention of this disease is concerned. He thought that the most important cause of uterine cancer was laceration of the cervix uteri, which had not been repaired one year after the accident. In order to obtain good results from the extirpation of the neoplasm, he thought it advisable to operate immediately without waiting for a confirmation of the diagnosis by a microscopic examination.

Hysterectomy in Acute Puerperal Infection.*—Dr. Pinard, of Paris, reporting at the Madrid International Congress of Medicine, on the question of hysterectomy in acute puerperal infections, recalled the conclusions presented before the Congress of Gynecology at Rome, in 1902, by Drs. Fehling, Leopold, Treub and Tuffier. The three first-named physicians thought, that in the treatment of acute genital infection, post partum or post abortum, with septicemia, but in which extra-uterine localisation was not demonstrable, the indication for hysterectomy was, to say the least, problematical. Dr. Tuffier thought that when the infected patient was in a desperate condition, and the accoucheur in despair, there was an indication for hysterectomy. Dr. Pinard agreed with the opinion expressed by the first-named physicians. He thought that hysterectomy should be done only in exceptional and well-marked cases, such, for instance, as those in which a retained placenta, putrefaction of a uterine fibroma or a traumatism of the womb (laceration, or inversion) may be present. He said that no data derived from clinical observation, bacteriology or pathological anatomy are at present capable of furnishing an indication for hysterectomy in acute puerperal infection. In his opinion, outside of the above-mentioned exceptional cases, there was no rational indication at all for hysterectomy in acute puerperal infection.

Influence of Open Air and Sunlight on the Body in Health and Disease.—Dr. E. Singer, of Berlin, reported at the Madrid International Congress of Medicine, that the sunbath produces powerful effects, since it can raise the body temperature to 104 degrees F., without producing subjective symptoms, the temperature returning to the normal after the bath. Tanning of the skin is of prognostic value—the less the skin browns after a series of sunbaths the more unfavorable the prognosis, as patients who are attacked with cancer, or a bad form of tuberculosis do not produce pigment, and, therefore, their skins do not become brown after exposure to the sun. The chemical rays of light influence the nutrition of the body by increasing the exchanges going on in its tissues, either in a local or general way. Besides, the rapid evaporation of sweat makes a free perspiration easy,

**Vide* Editorial Note in August number, p. 136.

and does not cause fatigue of the heart. Sunbaths are used successfully in scrofulous and tubercular diseases, in diseases of the heart and blood vessels, in diseases of the skin, and nervous system, particularly in neurasthenia.

The Prevention of Malaria.—In his report on the prevention of malaria to the Madrid International Congress of Medicine, Dr. Ascoli, of Rome, stated that the prevention of malaria will not have attained its real aim and object, until tillable land in localities formerly known as malarial will be so improved by drainage and cultivation that the husbandman will not be forced to wear anti-mosquito masks while at his work, or to take quinine. In the meantime he recommended the following means for preventing malaria: (1) The elimination of the infected person. This is an ideal method. In certain cases the malarial patient should be isolated as well as treated. (2) The destruction of mosquitoes. Drainage of the soil and cultivation are the best means for the accomplishment of this object. (3) The prevention of contact between man and mosquitoes. The building of villages on high places, use of mosquito nets, etc.; the use of mechanical protectives, metal masks, gloves and screens, are particularly useful for special classes of men who are under discipline, such as soldiers and railway employees. (4) By rendering man refractory to malaria. Serotherapy has so far given negative results in the treatment of malaria; on the contrary, quinine, in preventive doses, gives satisfaction, when this treatment is pushed for some time.

Report of the German Tuberculosis Commission.—The German Commission appointed to investigate the claims made by Professor Robert Koch, at London, in 1901, viz., that human tuberculosis is not identical with cattle tuberculosis, or murrain, and that cattle tuberculosis cannot be transmitted to man, reported, July 9th, to the Berlin Medical Society. The report was read by Professor Kossel, director of the Bacteriological Laboratory of the German Health Office. The experiments detailed were confined to inoculating cattle with the bacilli of animal tuberculosis, and also those of human tuberculosis. The result obtained was that in the former case acute tuberculosis was engendered, and in the latter case it was not. Animals treated,

however, with a subcutaneous injection of the bacilli taken from persons suffering from intestinal tuberculosis, developed tuberculosis; but, as such a form of disease is extremely rare, Professor Kossel arrived at the opinion that his experiments proved that Professor Koch was justified in the view he expressed at London. Professor Orth, successor to Virchow in the chair of Pathological Anatomy at Berlin, denied the correctness of the conclusion arrived at by the reporter. He contended that human tuberculosis can be transmitted to animals and *vice versa*. In the meantime, it is a satisfaction to know that Koch holds the field, and that his opinions as to the routes by which tubercular infection reaches human beings are confirmed by good observers.

Remarks upon Cæsarian Section for Placenta Prævia, with Special Reference to the Life of the Child.—In a paper read by invitation before the Celtic Medical Society of New York, Academy of Medicine, New York, April 23rd, 1903, and published in the *Annals of Gynecology and Pediatrics*, Boston, August, 1903, Dr. Francis D. Donoghue, Instructor in Clinical Surgery, Tufts Medical School, Boston, said: Is Cæsarian section for certain varieties of placenta prævia justifiable? If you believe that the mother and child have the same right to life, you must answer affirmatively. If, on the other hand, you believe in the teaching that the infant may be deliberately sacrificed to improve the mother's chances of living, then you probably do not believe in this treatment. After quoting results of Shauta, Ehrenfest, Fry, Straussman, and Higgins, Dr. Donoghue says: "It is evident, therefore, that the results of the modern conservative treatment for placenta prævia compare favorably, so far as the child is concerned, with the conservative operation so common twenty years ago in cases of contracted pelvis, namely, craniotomy. The mortality to the mother, in both instances, is about the same. Craniotomy, with a low maternal mortality, has given place to Cæsarian section, with a slightly higher maternal mortality, because the right of the child to life cannot be denied. Is it unfair to draw a parallel between the operation which deliberately sacrifices a hundred per cent. of the children in the interest of the mother, and one which only sacrifices eighty or ninety per cent.? Finally, I believe that (a) the operation should be performed

through the left rectus muscle; (b) incision of the uterus is not usually followed by hemorrhage, even when the broad ligaments are not constricted; (c) time should be allowed for contraction and retraction of the uterine fibres before attempting to remove the placenta; (d) if sufficient time be given for this to occur, no blood will be lost from beginning to end of operation, and if severe hemorrhage has preceded operation the abdomen can be filled with saline solution before it is closed; (e) the shock of such an operation is certainly not greater than that of version or forceps in a woman already exhausted; and (f) within a few minutes of starting, the indications of treatment—(empty uterus, and control hemorrhage)—will have been fulfilled. A consideration of the rights of a patient to choose a treatment for herself opens up a question so broad that it can not be satisfactorily considered in one paper even of considerable length. However, if we concede that the patient has the right to elect that she shall not again be exposed to the danger of repeated extra-uterine pregnancy, or to a pregnancy that makes a serious operation necessary, if a living child is to be obtained, and if she may demand as her right that some mechanical obstacle be placed in the way of future child-bearing, will we not also be obliged to concede that she may demand relief from any child-bearing, if she decides that it is accompanied by more danger than she is willing to risk?

J. J. C.

PERSONALS.

DR. GEO. PETERS is spending some weeks on the Atlantic coast.

DR. F. LEM. GRASSETT, of Simcoe Street, returned from the Old Country three weeks ago.

DR. A. J. JOHNSON took a vacation of three weeks last month at his country house at Goderich, Ont.

DR. MACDOUGALL has removed from 306 Bathurst Street to the corner of Spadina Avenue and Harbord Street.

DR. C. R. CUTHBERTSON, of Toronto, left August 4th, for California where he will spend a few weeks.

DR. MALCOLM CAMERON BLACK, of Paisley, has been appointed an associate coroner for the County of Bruce.

DR. BRUCE RIORDAN, of Toronto, spent two weeks in July travelling and visiting Cape Breton and other points in Nova Scotia.

DR. W. S. PLAYFAIR, the noted specialist in women's diseases and an authority on obstetrics, died August 16th, at St. Andrews, Scotland.

DR. ALEX. PRIMROSE has been spending the past few weeks with his family in Muskoka, having a much-needed rest prior to his winter's work in the Amalgamated Faculties.

AT Bracebridge on the 13th ult. at the Liberal convention held to nominate a candidate for the local legislature, caused by the death of the late Dr. Bridgland, Dr. Hart, of Huntsville, was the unanimous choice of the convention.

DR. JUSTIN HEROLD, of New York City, recovered a verdict of \$12,158 against the Metropolitan Street Railway Co. for injuries received three years ago, in a collision while a passenger on one of the cars. The case was tried before Judge Leventritt, and a jury, and the Supreme Court. Dr. Herold is the well-known author of "Herold's Legal Medicine."

DR. HOLFORD WALKER's private hospital on Isabella Street, in this city, has for months now been "full up," or nearly so. This institution has for several years numbered among its inmates patients sent for treatment to Dr. Walker by members of the profession all over Canada, and the hospital is now known as one of the most up-to-date and best-managed institutions in the province. The profession may always rest assured that any patients referred there will receive the best of care, the medical superintendent being always jealously careful of the interests of those referring cases to him. To his having pursued that path can be attributed entirely his success in the past.

Obituary

DEATH OF DR. J. W. McLAUGHLIN, OF BOWMANVILLE.

DR. J. W. McLAUGHLIN, Registrar for West Durham, died, in his 63rd year, at his home in Bowmanville, on the 9th ult. He had been in very poor health for two years, and a month before went to Guelph for a change, and was thought to be benefited, but he was suddenly taken ill on August 8th, and died early next morning. The funeral took place from the family residence, Rathskamory, on Tuesday, the 11th, at 2 p.m. Deceased was the son of John and Eliza McLaughlin, of Tyrone, Darlington township, and was educated at Tyrone Public School. After a brilliant medical course in the University of Toronto, he graduated in 1864. He was gold medallist in his class, and was subsequently appointed an examiner in the university. He became a licentiate of the Medical Council of Ontario the same year. In 1872, after practising medicine at Enniskillen seven years, he went to the Old Country, and successfully passed the examinations of the Royal College of Surgeons and the Royal College of Physicians, taking the M.R.C.P. and M.R.C.S. diploma at Edinburgh. He was for many years a member of the Medical Council of Ontario, and was looked upon as one of the most skilful physicians in eastern Ontario. Just twenty-eight years ago, he went from Enniskillen to Bowmanville, where he enjoyed a very extensive practice till his health broke down. Dr. McLaughlin represented West Durham in the Liberal interest in the Ontario Legislature for three Parliaments. On entering the Legislature he formed a partnership with Dr. Alex. Beith, which has ever since existed. Deceased was a capital debater, having few equals as a political platform speaker, and his voice was often heard in the legislative halls. He was twice married, his first wife being Ida Ella Gross, and his second wife, who survives him, Sarah J. Wilkinson, youngest daughter of the late Captain Neil Wilkinson. He leaves also two sons, Arthur E., who practises law in Bowmanville, and Norman, of Dunkirk, N.Y. His eldest daughter is the wife of Mr. B. B. Cronyn, Toronto, now in Paris, France, where their children are being educated, and a daughter, Mary lives at home. Deceased was a great temperance advocate, and took an active part in every campaign against the liquor traffic during the last quarter of a century. On retiring from the Provincial Par-

liament, he was appointed Registrar for the West Riding of Durham, an office which he held up to his death. He was about thirty-five years superintendent of the Presbyterian Sunday School at Enniskillen and Bowmanville, and has long been an elder, and member of the Board of Managers in St. Paul's Presbyterian Church.

DEATH OF DR. L. S. OILLE, OF ST. CATHARINES.

ONE of St. Catharines' most enterprising citizens, in the person of Lucius S. Oille, M.D., died on August 15th, at his late residence on Queen Street at the age of 73 years, after an illness of several months. The late Dr. Oille entered public life as a councillor for St. Andrew's Ward in 1868, and served for some years as representative of that ward. Before St. Catharines was incorporated as a city he served as reeve for a number of years, and was elected to the mayoralty in 1878, presenting the city with the first public drinking fountain on his retirement. He also was chosen warden for the County of Lincoln for one term. He took an active part in the work of establishing the civic waterworks system, and was chairman of the Water Commission for a number of years. He was one of the promoters of the Niagara Central Railway, and the local street car line between the city, Merritton and Thorold, which was then operated by horse power, and was later transformed into an electric line, being the pioneer trolley line in Canada. For a number of years he was President of the Board of Trade, and up to this year was a member of the council of the Board of Trade. Dr. Oille built the Grand Central Hotel, and many other buildings in St. Catharines, and at one time was one of the largest property owners. He was an ardent member of the Masonic fraternity, and a past master of Temple Lodge. Deceased was born in the Township of Pelham on October 6th, 1830, and was the youngest son of the late George Oille. Funeral services, under Masonic auspices, were conducted on Monday afternoon, the 17th.

Death of Dr. Donald MacLean, a Canadian.—Dr. Donald MacLean, a noted surgeon in the State of Michigan, died July 24th at his home in Detroit from gastro-enteritis. D. MacLean was born in Seymour Township, Ontario, in the year 1839, and graduated from Edinburgh University in 1862. He practised medicine in Kingston, Ont., until 1870, excepting the years 1863-64, when he was a surgeon in the United States Army. In 1870 he became professor of surgery at the University of Michigan,

and held the chair until 1889. He was for a number of years chief surgeon of the Michigan Central and Grand Trunk Railroads, and in 1894 was president of the American Medical Association.

Dr. Fife Fowler, of Kingston, Dead.—Dr. Fife Fowler, one of the founders of the College of Physicians and Surgeons, and prominently identified with Queen's University, died on August 3rd, aged eighty years. The deceased was born at Elgin, Scotland, and was educated at Aberdeen and Edinburgh Universities. He came to Canada in 1854, and settled in Kingston. The deceased was a well-known physician, and enjoyed for many years a very large practice. He was president of the Oddfellows' Relief Association for many years. His wife, one son, Henry, a barrister, Toronto, and four daughters survive. He was president of the Ontario Medical Council in 1892.

Death of Dr. Stuart McArthur, of Paisley.—The death of one of Paisley's most respected citizens occurred in the person of Dr. Stuart McArthur, on 3rd ult. He occupied the position of Reeve of Paisley for five consecutive years. He was junior bard of the Caledonian Society. He was a member of the Anglican Church, and a staunch Conservative in politics. He had been in actual medical practice for about thirty years, and was fifty-one years of age. He leaves a widow and eleven children to mourn his death. The funeral took place Wednesday, the 5th August, to G.T.R. Station, thence to Carleton Place, the home of his boyhood.

DR. JAMES MCGARRY, of Niagara Falls South, a coroner, and one of the most prominent physicians in that district, died on August 13th, aged 69 years. He was a prominent Mason, Workman, and Royal Templar, and was widely known and respected. The funeral was held on Saturday afternoon, the 15th. The doctor had a foot amputated a few days before on account of gangrene, and the shock was too much for him.

❧ *News of the Month.* ❧

TWO UNIVERSITIES JOIN HANDS.

THE following is the address issued by the Vice-Chancellor of Trinity University and the Medical Faculty of Trinity Medical College, to the Graduates and Under-Graduates in Medicine of Trinity University, and to all Students of Trinity Medical College, urging them to throw in their lot with what is now the Provincial University:

Gentlemen.—It is important that you should have a clear understanding of what steps have been taken by the authorities of the College and University towards the Federation of Trinity University with the University of Toronto, and the amalgamation of the two Medical Faculties, and how such arrangements will affect those at present registered as students of Trinity Medical College.

With this object in view we have much pleasure in submitting to you the following statement, by which you will see that your interests have been carefully and zealously conserved, and that provision has been made for the completion of your Medical Course under the most favorable auspices.

As announced at the Medical Convocation last May, arrangements were concluded whereby the Faculty of Trinity Medical College became the Medical Faculty of Trinity University. One important feature of the changes proposed in this connection was the erection of new buildings adjoining the present Trinity Medical College. While the details of this proposal were being worked out, it was strongly urged upon the authorities of the Medical College and of the University that the interests of all Medical students in Toronto, both present and future, would be better served by co-operation with the Medical Faculty of the Provincial University, than by the perpetuation of two rival institutions in Medicine. It was pointed out further that the erection of the proposed building would necessarily mean the indefinite postponement of such co-operation to the disadvantage of Medical Education generally, and the weakening of both institutions. Accordingly, the plans which had been commenced were postponed pending the full discussion of this important question, the result being an almost unanimous decision in favor of co-operation, and

the acceptance of the draft for an amalgamated Faculty in Medicine, in which provision is made for every member of both Faculties, with the exception of the former Dean of Trinity Medical College, who resigned his position during the course of these negotiations. We desire to take this opportunity of expressing our warm appreciation of the long, faithful, and valuable services of Dr. Geikie, who has been such a power for good in our Medical College during the past thirty-three years. In this expression of appreciation we are sure every student of the College will join most heartily.

By reference to the list of the proposed Amalgamated Faculty appearing in our editorial pages you will at once see what excellent provision has been made for advancing the best interests of Medical Education in Toronto. It is generally acknowledged that such a Faculty, possessing as it does ability, strength, and efficiency in Medical teaching, will render signal service to the entire Medical profession of the Province, and we confidently anticipate that under the new conditions now created, Toronto will more than ever occupy a proud and leading place among the educational centres of this Dominion and the Continent.

When not only the strength and efficiency of the new Amalgamated Faculty is considered, but also the excellent and ample provision for all branches of medical teaching in the now completed new Medical Buildings of the University of Toronto, and we reflect that before our new buildings could have been erected and equipped (in view more especially of the delay necessarily incident to the unsettled conditions of the labor market) most of the present students of Trinity Medical College would have been far advanced in their course, we feel confident that they will frankly recognize that their best interests have been served by the arrangements outlined in this letter.

As bearing more particularly upon the status of matriculants and the rights of non-matriculated students of Trinity Medical College, we beg to draw attention to the following provisions:

"The non-matriculated students of Trinity Medical College shall be allowed two years from the date of Federation for matriculating in Trinity University, under the regulations in force in that University at the time of Federation."

Those who have already matriculated, as well as those matriculating within the time specified above, will have the option of either proceeding to the degree of M.D., C.M. of Trinity University, on the conditions under which they entered, or proceeding to an M.D. degree in the following year if desired, from the Provincial University. In both instances students will attend and receive lectures from the Amalgamated Faculty.

All Graduates in Medicine of Trinity University will be en-

rolled in the Provincial University, and their names will appear in the various Calendars with their degrees designated.

As defining more clearly the status of Graduates and Under-Graduates under Federation, we quote the following extract from the Articles of Agreement:

"All Graduates and Under-Graduates of Trinity University excepting those in Theology, are, from and after the date of Federation, to have and enjoy the same degrees, honors, and status in the University of Toronto as they previously held in Trinity University, and shall be entitled, subject to the provisions of the University Act of 1901, to all the rights and privileges pertaining to such degrees and status so long as such Federation continues."

The Fellowship of Trinity Medical College (as the Medical Faculty of Trinity University) will be granted to such students as are now enrolled in Trinity Medical College upon their complying with the requirements and passing the examinations necessary to entitle them to receive such fellowship.

The Corporations of Trinity Medical College and Trinity University wish their Graduates and Under-Graduates to be clear upon the point that their interests, both now and for all time, have been most carefully safeguarded, and they will enjoy the same rights and privileges in the Provincial University, of which Institution each one of them will under Federation form an integral part, that they do now enjoy, and have heretofore enjoyed as students and Graduates of Trinity University.

It is highly desirable that the students who have been in attendance at Trinity Medical College should register their names with Dr. Primrose, the Secretary of the Medical Faculty, Biological Department, Queen's Park, Toronto, *at as early a date as possible*, as seats in the lecture theatres are assigned according to priority of the date of registration.

No fee will be required from students in the Third and Fourth Years. Students of the Second Year will require to make a locker deposit of \$2, and those in the First Year, the registration fee of \$5, in addition to the locker deposit.

Signed on behalf of Trinity University,

T. C. S. MACKLEM, *Vice-Chancellor.*

Signed on behalf of Trinity Medical College,

J. A. TEMPLE, *Dean.*

CHAS. SHEARD, *Treasurer.*

D. J. GIBB WISHART, *Secretary.*

Toronto, 27th July, 1903.

AMENDMENT TO THE ACT RESPECTING CORONERS.

THE following is the amendment to the Act respecting Coroners passed at the recent session of the Ontario Legislature and also the Regulations passed by the Lieutenant-Governor-in-Council thereunder:—

Section 22 of The Statute Law Amendment Act, 1903, provides:

22. Section 1 of the Act respecting Coroners is amended by adding thereto the following sections:—

(2) The Lieutenant-Governor may from time to time appoint a coroner, to be designated "the Coroner for the City of Toronto," and from and after such appointment all coroners or associate coroners theretofore or thereafter appointed in and for the County of York shall as to the City of Toronto have and exercise within the City of Toronto the powers only of associate coroners for the said city, but this shall not limit the power of the Lieutenant-Governor to make further appointments of associate coroners for the City of Toronto from time to time. The powers and duties of the coroners in the said city respectively, shall be defined by and shall be exercised subject to such regulations as may from time to time be made by the Lieutenant-Governor-in-Council.

(3) Whenever the death of any person appears to have been caused by an accident occurring upon a street or highway in the City of Toronto in the operation of any railway or street railway or electric railway on or across any street or highway the Crown Attorney for the County of York shall direct the coroner or one of the associate coroners in the said city to hold an inquest upon the body of the person so dying, and the coroner or associate coroner to whom such direction is given shall issue his warrant and hold an inquest accordingly.

(4) Section 4 of this Act shall not apply to or be in force as to inquests in the City of Toronto under the foregoing provisions of this Act, nor as to investigations held in the City of Toronto under section 6 of this Act.

(5) The Coroner for the City of Toronto shall be paid such salary, not exceeding \$1,500, as may be fixed by Order in Council, and the same shall be paid by the city half-yearly and shall be in lieu of all fees which would otherwise be payable to him and the city shall be entitled to be reimbursed out of the Consolidated Revenue Fund as to one-half of such salary.

(6) Any coroner within whose jurisdiction the body of a person is lying upon whose death an inquest ought to be held may hold the inquest. (See Imperial Coroner's Act, 1867, s. 7.)

*Regulations Passed by the Lieutenant-Governor-in-Council
Pursuant to Chapter 176, Section 22, 3 Edward VII.*

1. Immediately on any death being reported to any Police Officer in the City of Toronto under circumstances that appear to require investigation by a Coroner, it shall be the duty of such Police Officer forthwith to report the same to the Coroner for the City of Toronto.

2. It shall be the duty of the Coroner for the City of Toronto upon receiving any report as to death within the limits of the City of Toronto under circumstances appearing to require investigation by a Coroner, forthwith to make such enquiry as may be necessary in the premises, and either personally to investigate the circumstances under which the death has occurred, and to hold an inquest if he is so advised, or to request some Associate Coroner for the City of Toronto to issue a warrant and make an investigation or hold an inquest. And in making such requisitions the Coroner for the City of Toronto shall apportion the work as equitably as possible amongst the several active Associate Coroners for the City of Toronto.

3. It shall be the duty of an Associate Coroner, upon the receipt of a requisition to make an investigation or hold an inquest, signed by the Coroner for the City of Toronto or by the Crown Attorney for the County of York, as the case may be, forthwith to issue his warrant with such requisition thereto attached and file the same at any police station in the City of Toronto, and proceed to make an investigation or hold an inquest. And no fees shall be payable to any Associate Coroner in respect of any investigation or inquest held by him unless the warrant and the requisition in that behalf have been so filed by him.

4. The requisition hereinbefore referred to, signed by the Coroner for the City of Toronto or by the County Crown Attorney for the County of York, as the case may be, shall take the place of the declaration referred to in section 4 of "The Act respecting Coroners," so far as the same relates to investigations and inquests in the City of Toronto.

ITEMS OF INTEREST.

The Chair of Surgery at Cambridge.—The chair of Surgery in the University of Cambridge, which has remained vacant since the death of Sir George M. Humphrey in 1896, was filled on July 27th by the election of Mr. Frederick Howard Marsh, F.R.C.S., Surgeon to St. Bartholomew's Hospital. The stipend is £600 a year, and the Professor is permitted to practise, the obligation being imposed on him of residing at the University during term.

American Electro-Therapeutic Association.—The thirteenth annual convention of the American Electro-Therapeutic Association will be held in Atlantic City, N.J., September 22nd, 23rd and 24th, 1903. Members of the profession are cordially invited, and it is desired to have as large a meeting as possible.

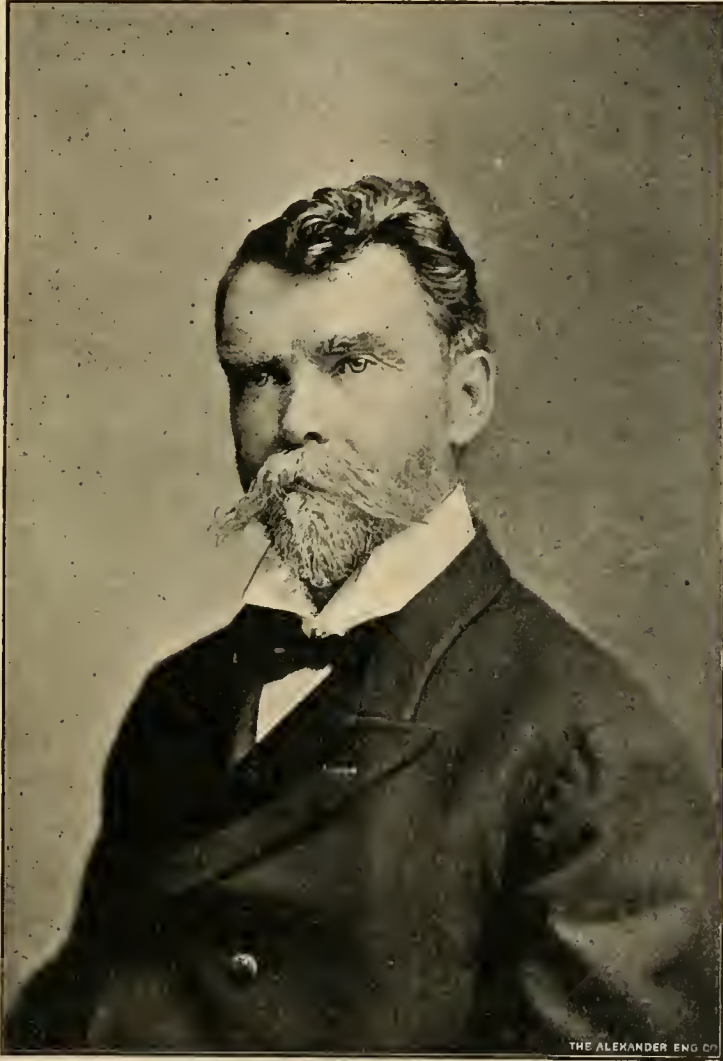
Dr. Bell Re-Enters Journalism.—The editorship of the *Medical Mirror*, made vacant by the untimely death of its founder, Dr. I. N. Love, has fallen to Dr. Raley Husted Bell, the poet-physician of the South. For some time Dr. Bell made *Moody's Medical Magazine* of Atlanta one of the most interesting of medical publications, and there is no doubt he will render the *Mirror* equally valuable as the literary character of the two journals has been much the same.

New Provincial Board of Health.—Upon the recommendation of the Honorable the Provincial Secretary, the Committee of Council advise that the following persons be appointed Members of the Provincial Board of Health for the term of three years, and that Edward E. Kitchen, M.D., be appointed Chairman of the said Board: Edward E. Kitchen, M.D., St. George: Alexander Thompson, M.D., Strathroy: Robert Penniel Boucher, M.D., Peterborough: William H. Oldright, M.D., Toronto: John Douglas, M.D., Cobourg: John J. Cassidy, M.D., Toronto.

A Tribute to Col. Neilson.—Col. J. L. H. Neilson, Director-General of Medical Services, Ottawa, has resigned his office, and the Militia Orders of August 11th contain the following announcement:—"Colonel J. L. H. Neilson, Director-General of Medical Services, having resigned his appointment, the General Officer Commanding cannot permit the severance of this officer from the active militia to pass without recording his satisfaction with the manner in which Colonel Neilson has performed his duties as a soldier during upwards of thirty years of faithful service to his country."

A Daily Medical Newspaper.—The Medical Publishing Company of America has been incorporated at \$150,000 under the laws of the State of New York, for the purpose of publishing *The Daily Medical Journal*. The first issue is scheduled for October 1st, 1903, and the subscription price has been placed at \$1 a year, which also includes *The New York Medical Critic*, a monthly journal now in its second year. The prospectus announces a six-page journal, 12 by 15 inches in size, with full affiliation with the associated press and 100,000 copies. The editorial staff has not yet been announced with the exception of Dr. M. W. Curran, managing editor, 154 East Seventy-second Street, New York.—*Am. Medicine*.

President Robertson of the Medical Council.—Dr. J. A. Robertson of Stratford, the President of the Ontario Medical Council this year, is a Canadian by birth. Born in the County of Perth, he received his training at the Toronto Normal School,



J. A. ROBERTSON, M.D., STRATFORD, PRESIDENT ONTARIO MEDICAL COUNCIL.

and graduated in 1871 at Trinity Medical College. He is a district surgeon of the Grand Trunk Railway at Stratford, and has been Medical Health Officer of that city for fourteen years, where he has practised for the last thirty-one years, and has a large and

lucrative practice. He was elected to the council five years ago, and has served on the Educational Committee, and was Vice-President of the Council last year. He is a Liberal in politics.

A "Proposed" Wedding Present for the Federated Colleges.

—A deputation composed of Dr. J. A. Temple, representing Trinity Medical College, and Dr. G. A. Peters, Dr. A. Primrose, representing the medical faculty of Toronto University, waited on the Government on July 15th. They asked that, in the event of the amalgamation of Trinity and Toronto University medical faculties, the Government endow five chairs, which have hitherto been kept up by fees. The chairs are preventive science, medical jurisprudence, sanitary science, anatomy, therapeutics. The deputation gave as their reason for making the request the fact that these chairs are essential to scientific research, and it was in the interests of the public health that they should be properly and efficiently maintained. The Government promised the usual consideration of the request.

Dr. J. B. Murphy and the "Commission Men."—That justly celebrated surgeon, John B. Murphy, of Chicago, has been made the victim of a most disreputable set of men connected with the so-called "Christian Hospital of Chicago." During his absence from the city these men sent letters to practically every doctor in the Mississippi valley offering 50 per cent. of all fees received from patients sent for operation—presumably by Dr. Murphy. This gentleman promptly declared his innocence in the matter, and had the senders indicted for fraudulent use of his name. The worst phase of the subject, however, is the abuse heaped upon Murphy by medical writers who did not try to ascertain whether or not he was responsible for the use of his name. The tendency of some men to think evil of the great is deplorable.—*Am. Jour. of Surgery and Gynecology.*

A Bacteriological Chart of Unusual Excellence.—There has been placed recently in the hands of the medical profession by the firm of M. J. Breitenbach & Co., of New York (the importers of Gude's Pepto-Mangan), a very fine bacteriological chart of pathogenic organisms. It is beautifully executed, and the coloring most delicate. We can safely say that we have noticed nothing better in the most recent book on bacteriology, and feel that the firm, who have had the drawings executed, deserve the thanks of the profession as a body, in placing such a work of art, apart from its scientific value, at its disposal. A set of plates such as they are, cannot fail to be of the greatest service to any practitioner in his microscopical investigations. A full chart will be mailed to any physician on receipt of his card by M. J. Breitenbach Co., Warren Street, New York.

Homewood Sanitarium, Guelph.—By an order-in-Council eighteen months ago the name "Homewood Retreat" was changed to "Homewood Sanitarium," the object being to help the friends of the institution bring the patients there more readily, the word "Retreat" being, in the mind of some, synonymous with that of an asylum. During the past few months, a great change has taken place at the Homewood. A nurses' home has been built, thus giving more accommodation in the building. Every room is at present filled. The staff has been doubled during the past year. The sum of \$10,000 will be spent this fall in building a house for the superintendent, and first-class quarters for the better class of lady patients. In a year or so, the directors intend spending a further sum of \$25,000 in adding more buildings, the pressure upon the present accommodation being very great. The rates at the Homewood have been slightly increased to from \$15 to \$30 a week. The grounds are looking beautiful just now, and the entire sanitarium makes a splendid home for those in need of special treatment.

Address to Dr. Walter B. Geikie.—The following address, dated June 14th, 1903, was presented by Trinity Medical College to Walter B. Geikie, retiring Dean:—"We, the Corporation of Trinity Medical College, in accepting the resignation of Dr. Walter B. Geikie, D.C.L., F.R.C.S.E., L.R.C.P. (Lond.), Dean of the Faculty, and Professor of the Principles and Practice of Medicine, desire to place on record our sense of the debt of gratitude owing to our late associate for his two and thirty years of earnest and self-sacrificing labor on behalf of the College. At all times in season and out of season, by night and by day, year after year, the cause of Trinity Medical College has ever been foremost in his thoughts, and the one object around which his affections centred. With every energy and faculty he possessed, Dr. Geikie labored to promote what he considered to be the best interests of the College which was so dear to his heart, and, owing in a large degree to these unwearied efforts, Trinity Medical College has attained the present proud position. It is with feelings of regret that the Corporation parts with him who is the father in Medicine of most of its members, who has presided over its meetings, and piloted its ship through so many breakers, and we one and all desire that Dr. Geikie may be spared for many years to enjoy the satisfaction of well-earned repose. Engrossed and signed by all the members of the Corporation: J. A. Temple, F. L. Grasett, W. T. Stuart, Charles Sheard, G. Sterling Ryerson, Luke Teskey, John L. Davison, G. A. Bingham, N. A. Powell, and D. J. Gibb Wishart.

The Physician's Library.

BOOK REVIEWS.

A Reference Hand-book of the Medical Sciences, embracing the entire range of Scientific and Practical Medicine, and allied Science. By various writers. A new edition, completely revised and re-written. Edited by ALFRED H. BUCK, M.D., New York City. Vol. VI. Illustrated by chromo-lithographs and 763 half-tone and wood engravings. New York: Wm. Wood & Co. 1903. Canadian agents: Chandler & Massey Limited, Toronto and Montreal.

The list of contributors to Volume V. of this great work in medical literature includes the following Canadians: Dr. E. W. Archibald, of McGill University; Dr. G. E. Armstrong, of the same university; Dr. F. A. L. Lockhart, of Montreal; Dr. W. S. Morrow, of Montreal; Dr. A. G. Nichols, of Montreal; Dr. F. J. Shepherd of Montreal General Hospital; Dr. Beaumont Small, of Ottawa; and Dr. D. W. Montgomery, now of San Francisco. The other names are those of men who stand very high up in the profession, and have reputations which justify the honor accorded to them. They include, for instance, Rudolph A. Witthaus, New York City; G. W. Wende, of Buffalo, N.Y., Brigadier-General Geo. M. Sternberg, of Washington, D.C.; T. M. Rotch, of Boston, Mass; E. O. Otis, of Boston, Mass.; E. Fletcher Ingals, of Chicago, Ill.; Smith Ely Jelliffe, of New York City; Isodore Dyer, of New Orleans, La.; Edward Curtis, of New York City; M. A. Crockett, of Buffalo, N.Y.; Rob. H. Babcock, of Chicago, Ill., and many others.

Vol. VI. includes almost everything medical from the letters "Mos" to "Rye." The volume is well illustrated, even more so than the preceding ones, and the illustrations are well executed. The chapter on Naval Hygiene interested us very much, showing how a ship's complement of men are constantly supplied with pure air, explaining the natural air currents in steamships, how to economise in ventilation, the vacuum method, plenum method, etc., etc. It would seem as if, in the building of those immense leviathans of the sea, as great care is used in considering the comforts of its living freight as if it were the most modern hotel. Under the head of "Pelves, deformed," a very interesting article is contributed, giving full details as to pelvimetry, the

different styles of pelvimeters, the differences between the male and female pelvis, the effects of rachitis in labor and how delivery of the child must, in extreme cases, be accomplished by Cesarian section. The chapter has quite a number of half-tones, showing such conditions as high and low dorsal kyphosis, lumbar kyphosis, obliquely contracted pelvis, and simple scoliosis. Not only to the orthopedist, but to the general practitioner, will this article prove most practical, as it includes all the most recent views on the treatment of this very unfortunate condition.

Vol. VI. covers about 1,000 pages, and is a work which in itself should meet with a ready sale, though we think that the publishers made a great error in using so small a series of type, which is tiring to the eyesight.

W. A. Y.

Polyphase Currents in Electrotherapy, with special reference to the treatment of Neurasthenia, Atonic Dilatation of the Stomach, and Constipation. A paper read before the British Electro-Therapeutic Society, on February 27th, 1903, by GEORGE HERSCHELL, M.D.(Lond.). Pp. 44, illustrated. London: Henry J. Glaisher, 57 Wigmore Street, Cavendish Square, W. 1903.

"Polyphase electric currents, although well known industrially, and on account of their economy, largely used for the transmission of electric light and power, have hitherto suffered unmerited neglect in the domain of electrotherapeutics." Guimbail of Paris has employed them for over sixty years, but the author was the first in Great Britain to study their therapeutic action. The first part of the paper is devoted to a technical description of what constitutes polyphase currents, and the manner in which such may be produced for practical purposes.

Three-phase currents are the most suitable therapeutically, because they produce a rotating magnetic field, and tissues acted upon by them are subjected to an "electrical whirlpool" which is demonstrable by a Braun tube.

A description of the Herschell-Dean Triphase Generator follows from which it appears that the currents produced are readily regulated, and that it is possible to obtain "a current of rapid alternations, exercising a powerful effect upon the metabolism of the body, and a tonic action upon the nervous centres" or "a current of slow alternations, which has the power of setting up comparatively painless muscular contractions, and appears to have an especial action upon unstriated muscular fibre."

Under physiological effects of these currents are noted: increase in the tension and amplitude of the pulse tracing, even after a few minutes' application; increase in the excretion of urea—in a case cited the urea excreted rose from 374.6 grains to 546

grains in 43 days with apparent restoration to perfect health; effect upon the motility of the gastro-intestinal tract, unstriped muscular fibre being caused to contract, a valuable action in atony of the alimentary canal. The technique for the use of the currents by means of electrodes and baths, local and general, follows, with instructions for the measurements of the currents employed.

The last chapter deals with the therapeutic application of the current in neurasthenia, in general, with special reference to cases with symptoms of muscular weakness, loss of memory, and the power of concentration, morbid fears, headache, nervous indigestion, neuroses of sensation, muscular atony of the stomach, and constipation.

The author is to be congratulated on his contribution to the literature of a most interesting subject. The science of electrotherapy is becoming more exact day by day, and advancing at such a remarkable rate that the progressive practitioner can no longer afford to ignore it, and any new light is ever welcome.

C. R. D.

Phototherapie—Photobiologie. Par les Docteurs Leredde et Pautrier. Un volume in 8o cavalier de 257 pages. Broche. Prix, 4 frs. C. Naud, editeur, 3 Rue Racine, Paris.

To all those who are interested in the subject of phototherapie, either from the purely scientific standpoint or from the standpoint of practical therapeutics, we can thoroughly recommend this book. It has been thought worthy of a preface by Professor Finsen, and his opinion of it can best be shown by a quotation from this preface. He says: "The subject is difficult, but it has been studied with care, intelligence and a critical spirit, and I cannot only recommend most highly a perusal of the book, but would also say that it is necessary to all those who occupy themselves with photobiology and phototherapy. It will be found to be the most complete and best exposition of the subject, and on the last chapter there is a necessary counterpoise to the exaggerations, theories and fantastical applications of phototherapy, which have already caused me much regret." The book is divided into two parts. The first portion is devoted to a very complete discussion of the whole subject of photobiology. The most interesting part of this first subdivision consists in the personal experiences of the authors, which are chiefly contained in the sixth chapter and consist of a study of the histological changes in the normal skin, as a result of the action of the violet rays. This chapter includes also a study of the pathological changes in the skin in the various manifestations of solar activity, such as solar eczema, hydroa, vernal, etc., etc. In the second part will be found no doubt the most interesting chapters to the phototherapist. The discussion of all the practical questions is very full, and especially of all the various forms of apparatus

in the market for the production of the violet light. In connection with this it is interesting to quote the experience of the authors and of Finsen himself and his co-workers upon the use of the arc from iron electrodes. The rays which have the greatest wave length seem to have the greatest power of penetration, that is, the longer ultra-violet and blue violet rays. The shorter ultra-violet rays on the other hand do not penetrate so deeply, and as these are the rays which are especially characteristic of the iron arc, it explains the practical experience of Finsen that these arcs are not of so much value for the treatment of lupus and the deeper affections of the skin, but are useful for the treatment of superficial nevi. In regard to the relative value of radiotherapy and phototherapy, the authors seem to think that as yet we have not sufficient data in regard to the former to give a definite opinion, although the extremely active character of the X-rays promise much; the same may also be said for the still newer radium therapy. Space will not permit a longer discussion of this work, but the reader will find it an exceedingly full exposition of the whole question. It is to be hoped that it will soon be translated into English. B. E. M'K.

Lectures on Massage and Electricity in the Treatment of Disease.

By THOMAS STRETCH DOWSE, M.D. (ABD.), F.R.C.P. (EDIN.), formerly Physician Superintendent Central London Sick Asylum; President North London Medical Society; Member of Council and Secretary for Foreign Correspondence Medical Society of London; Physician to the North London Hospital for Consumption and Diseases of the Chest; to the North-West London Hospital, and to the West-End Hospital for Epilepsy and Diseases of the Nervous System; Associate Member of the Neurological Society of New York, etc. Fourth and revised edition. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Limited.

Massage and electricity are gradually but surely taking a prominent position in the list of remedies used by the profession, especially in chronic diseases. It is, therefore, most essential that text-books and lectures upon these subjects should be presented from time to time, more especially when treated on purely scientific grounds, as we find these lectures have been, thus removing any suspicion of charlatanism. The author has divided his lectures, treating first on the Physical and Physiological aspects, upon which much attention has been devoted. Then follows, in order, the methods of applying massage of the different regions and tissues of the body, as applied for the different pathological conditions. An interesting chapter describes the Weir Mitchell treatment, another the Nauheim or Schott treatment in cardiac affections, both of which we thoroughly enjoyed. A

complete discourse on the fascinating subject of electro physics and therapeutics, including the Rontgen Rays and Light cure, brings these seductive lectures to a close. W. H. P.

The Practical Medicine Series of Year-Books, comprising ten volumes on the year's progress in medicine and surgery. Issued monthly, under the general editorial charge of GUSTAVUS P. HEAD, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume V., Obstetrics, edited by REUBEN PETERSON, A.B., M.D., Professor of Obstetrics and Gynecology, University of Michigan. 235 pages. Cloth, \$1.25. April, 1903. Volume VI., General Medicine, edited by FRANK BILLINGS, M.S., M.D., Head of the Medical Department and Dean of the Faculty of Rush Medical College of Chicago, and J. H. SALISBURY, M.D., Professor of Medicine, Chicago Medical School. May, 1903. Volume VII., Pediatrics, edited by ISAAC A. ABT, M.D., Assistant Professor of Medicine (Pediatrics Department) Rush Medical College. Orthopedic Surgery, edited by JOHN RIDLON, A.M., M.D., Professor of Orthopedic Surgery Northwestern University Medical School. June, 1903. Price of this volume, \$1.25. Whole series, \$7.50. Chicago: The Year-Book Publishers, 40 Dearborn Street.

The April volume on Obstetrics is divided into four parts, viz., Pregnancy, Labor, the Puerperium, and Obstetric Surgery. The selections are good, and cover the year's work very fully. The May volume on General Medicine is devoted to Typhoid, Malarial and Yellow Fevers, Dysentery, Cholera, and Diseases of the Stomach, Intestines, and Liver.

Volume VII. for June, on Pediatrics and Orthopedic Surgery, takes up Hygiene and Dietetics, and covers the field of children's diseases. Orthopedic Surgery takes up 36 of the 233 pages, and has several illustrations. We are very much pleased with the volumes. They keep one up with his journal reading, and make convenient works of reference. W. J. W.

Manual of Medicine. By THOMAS KIRKPATRICK MUNRO, M.A., M.D., Fellow of and Examiner to the Faculty of Physicians and Surgeons, Glasgow; Physician to Glasgow Royal Infirmary and Professor of Medicine in St. Mungo's College; formerly Examiner in the University of Glasgow; Pathologist to Victoria Infirmary. University Series. London: Balliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1903.

Dr. Munro's work is divided into twelve separate and distinct sections. Section 1 is devoted to specific infectious diseases:

section 2 to constitutional diseases; 3 to diseases of the cardio-vascular system; 4 to diseases of the blood and ductless glands; 5 to diseases of the respiratory system; 6 to diseases of the digestive system; 7 to diseases of the kidney; 8 to diseases of the nervous system; 9 to diseases of the muscles; 10 to diseases of the skin; 11 to intoxications and sunstroke, and section 12 to diseases due to animal parasites. The book covers nearly 900 pages, and is fairly liberally illustrated. The size of the type used is first-class, a point worthy of comment, as too many medical books are being printed in a type altogether too small, and, therefore, tiresome to the reader. Many hold the view that there is no room at present for any more works on the Practice of Medicine; but we cannot take that stand, as not a day, or even an hour passes without some advance being made in this great science, which, to be of any general service, must be recorded. Dr. Munro has published a manual which should prove of value, not alone to the student of medicine, but the profession at large.

A Manual of Obstetrics. By A. F. A. KING, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D.C., and in the University of Vermont; President (1885-86-87) of the Washington Obstetrical and Gynecological Society; President (1883) of the Medical Society of D.C., and of the Medical Association of D.C., 1903; Fellow of the British Gynecological, and of the American Gynecological Societies; Consulting Physician of the Children's Hospital, Washington, D.C.; Obstetrician to the Columbian University Hospital; Member of the Washington Academy of Sciences; Fellow of the American Association for the Advancement of Science; Associate Member of the Philosophical Society of Great Britain; and Member of the Medical, Philosophical, Anthropological, and Biological Societies of Washington, D.C., etc. Ninth edition, revised and enlarged. With two hundred and seventy-five illustrations. Philadelphia and New York: Lea Brothers & Co. 1903.

The author of this work is an obstetrician of great experience, and has spent much time and taken great pains to make this book as valuable an adjunct to the busy practitioner as possible. There have been many additions and changes made in this edition to keep pace with the progressive strides that obstetrical science is making. The chapter on Puerperal Septicemia has been remodelled, and for the most part re-written. Newer illustrations have replaced older ones. The general scope of the work is elementary, the main object being such brevity and simplicity of statement as might be easily intelligible to all students. The chapter on

Obstetric Jurisprudence is especially useful, and we are glad to see such an important subject given such attention. A. J. H.

Public Health Laboratory Work. By HENRY R. KENWOOD, M.B., D.P.H., F.C.S., Instructor in the Public Health Laboratory, University College, and Asst. Professor of Public Health, University College, London; Medical Officer of Health and Public Analyst for the borough of Stoke Newington, etc., Part VII., dealing with public health bacteriological work. Contributed by W. G. SAVAGE, M.D., B.Sc., D.P.H., Medical Officer of Health, Colchester; formerly Assistant to the Professor of Pathology, with charge of the Bacteriological Department University College, London; Lecturer on Bacteriology and Public Health, University College, Cardiff, and Bacteriologist to the Cardiff and County Public Health Laboratory. Third edition, with illustrations. London: H. K. Lewis, 136 Gower Street, W.C. 1903.

The authors have in publishing a third edition thoroughly revised their book and brought it up to date. A considerable quantity of new material has also been added, making the volume somewhat larger than its predecessor. The chapters devoted by Dr. Savage to the bacteriological examination of milk, soil, water, etc., are exceedingly practical, and even to the general practitioner make most interesting reading. Another portion which interested us is that dealing with the bacteriological diagnosis of such diseases as diphtheria, typhoid fever and tuberculosis. The volume though perhaps more particularly suited for those who take up public health as a specialty, will not be out of place in an ordinary practitioner's library.

The Practical Application of the Roentgen Rays in Therapeutics and Diagnosis. By WILLIAM ALLEN PUSEY, A.M., M.D., Professor of Dermatology in the University of Illinois; and EUGENE W. CALDWELL, B.S., Director of the Edward N. Gibbs X-Ray Memorial Laboratory of the University and Bellevue Hospital Medical College, New York. Handsome octavo volume of 591 pages, with 180 illustrations, nearly all clinical. W. B. Saunders & Co. 1903. Cloth, \$4.50 net; sheep or half morocco, \$5.50 net. Canadian Agents: J. A. Carveth & Co., Toronto.

This volume is divided into two sections; the first dealing with X-Ray apparatus, and its use in diagnosis, and the second with the therapeutic application of X-Rays. Of one thing there is very little, if any, doubt, and that is, that there has been for some time past plenty of room for a volume devoted to this subject. There is far too great a condition of "crass" ignorance on the part

of members of the profession, even, as to the Roentgen rays, and their practical application. It is true that there have been some unfortunate results follow the use of the X-Rays, but they are as nothing, when their actual value as a means towards diagnosis is taken into consideration. The illustrations in this book represent actual clinical subjects, and certainly show in a most convincing manner their value, not only as a therapeutic agent, but as an incomparable means, towards correct diagnosis. Drs. Pusey and Caldwell's book is practical from cover to cover, and we would heartily advise general practitioner, surgeon or specialist in any branch to purchase, read and "inwardly digest" it. W. A. Y.

The Pocket Therapist. A dictionary of disease and its treatment, being a concise manual of modern treatment, and an aid to many, for students and practitioners. By THOMAS STRETCH DOWSE, M.D. (Abd.), F.R.C.P., Edinburgh; formerly Physician Superintendent Central London Sick Asylum; President North London Medical Society; Member of Council and Secretary for Foreign Correspondence Medical Society of London; Physician to the North London Hospital for Consumption and Diseases of the Chest, to the North-West London Hospital, and to the West End Hospital for Epilepsy and Diseases of the Nervous System; Associate Member of the Neurological Society of New York, etc., etc. Third edition, revised and enlarged. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Limited. 1903.

The best description of Dr. Dowse's work would be to term it a pocket dictionary. We can conceive of nothing more handy for a practitioner to carry with him in his daily rounds than a book of this kind, as its perusal must have but one effect, viz., to remind him of practical points, which must be of the greatest help to him in his daily work. A glance over the book will convince anyone of its value, as it gives in a short page the most salient points as to the treatment of each of the diseases most commonly met with. The book can be obtained interleaved if so desired, thus permitting of notes being made from time to time.

American Edition of Nothnagel's Practice.

Diseases of the Stomach. By DR. F. RIEGEL, of Giessen. Edited, with additions, by CHARLES G. STOCKTON, M.D., Professor of Medicine in the University of Buffalo. Handsome octavo volume of 835 pages, illustrated, including 6 full-page plates. Philadelphia, New York and London: W. B. Saunders & Company. 1903. Canadian Agents: J. A. Carveth & Co., Toronto, Ont. Cloth, \$5.00 net; half morocco, \$6.00 net.

This volume, like the others of this excellent practice, is thorough and complete. The importance of examining the

stomach-contents in diagnosis, and the various methods of obtaining the contents and performing the examination are discussed with accuracy and clearness. Full consideration is given to the hydrochloric acid question as a factor in the pathology of stomach diseases, the latest views having been incorporated by the editor. Particular attention has been accorded disturbances of motility and their influence in the disturbances of secretion. Treatment is very fully considered. The author is emphatic in his own views, but not intolerant of those of others. The work is so large and full that it is quite beyond the scope of a short review. It can be unhesitatingly recommended as probably the best extant on the subject. The author has long enjoyed a wide reputation in this field of investigation and therapeutics, and the editor has made some valuable additions to the German text. It is unnecessary to say that the publishers have produced a creditable book. A. M'P.

A Nurses' Hand-book of Obstetrics. For use in training schools.

By JOS. BROWN COOKE, M.D., Fellow of the New York Obstetrical Society, Lecturer on Obstetrics to the N.Y. Training School for Nurses, Surgeon to the N. Y. Maternity Hospital, etc. Philadelphia and London: J. B. Lippincott Co. 1903.

It has frequently occurred to us that a nurse, in undergoing her probation period at some training school, is beset with many difficulties in trying to secure the necessary knowledge to fit her for her life's work. The greatest of these has been, however, her being able to purchase a proper series of books (not the average so-called "Manuals of Nursing"), from which she can study Medicine, Obstetrics, and Surgery, without having to delve into heavy volumes with their innumerable statistics and incomprehensible technicalities, written only for those who are taking up a full course of medicine. It is true that there are published several "Manuals of Nursing," but they are entirely too shallow and incomplete to be of much practical benefit during training, especially in the Practice of Obstetrics.

Dr. Cooke's hand-book almost "fills the bill," though we think that he might have elaborated a little more on the Mechanism and Phenomena of Labor. It will be found, however, to fill a gap that has always been widening, rather than otherwise, during the past few years, and ought to have an extensive sale.

The Secrets of Specialists. By A. DALE COVEY, M.D. First edition. Physicians' Supply Company, Publishers, 111 Ledyard Street, Detroit, Mich.

This is, the writer tells us, "an attempt to unfold the sombre robe which formerly clothed some of the secrets and mysteries connected with the healing art," to offer "many suggestions and

methods of treatment . . . which have exceptional merit and are indispensable in curing disease," and incidentally "to suggest a method of establishing and increasing an office practice either for a specialist or a general practitioner." This looks inviting and likely to be of use as well as amusing. Various types of so-called specialists are fully described, perhaps not of the most desirable kind, rather what should come under the head of "quacks," "charlatans" and "humbugs." Nor is the line very well defined by the writer as to what is a "specialist" and what a "quack." Their peculiarities and rascalities, however, are very well exposed and make the book very readable. The little volume is of undoubted value to the mature physician who has come into contact with these people, perhaps to his misfortune. The formulæ, of which there are a great many, are very interesting; look, for instance, at "Peruna," said to be composed of six drams of copaiba, two drams of cubebs, with a little calysaya, stone-root and turkey corn dissolved in one pint of deodorized alcohol. It is easy to see why this preparation should have many temperance advocates, but, looking at the "swell" names signed to the testimonials in the public press, the question naturally suggests itself to one's mind, Is it the "Pivy" or the poor whiskey which attracts so many, and produces such good results?

A. J. J.

A Laboratory Text-Book of Embryology. By CHARLES SEDGWICK WINNOT, LL.D., D.Sc., Professor of Histology and Human Embryology in the Harvard Medical School. With 218 illustrations, chiefly original. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Canadian Agents: Chandler & Massey Limited, Toronto and Montreal. Price 4.50 net.

This volume was prepared mainly to assist students taking a practical course in embryology. Attention is given to such points as serve to explain permanent anatomical relations in the adult; to illustrate general principles of biology, and to afford insight into pathological processes.

The illustrations have been prepared with great care, and were selected with a view to aid students in the work of making and studying sections in the laboratory. Full directions and explanations of the various structures illustrated are given in the text, making it a valuable help for those who wish to do practical work in embryology.

A. E.

Le Traitement Rationnel du Diabète. Par M. le DR. A. LORAND Médecin consultant aux Eaux de Carlsbad. Paris: C. Naud Editeur, 3 Rue Racine. 1903.

This is a pamphlet of 53 pages, in which Dr. Lorand, after passing in review the merits of a regulated diet, drugs, muscular exercise, and hepatic opotherapy in the treatment of diabetes, gives the

preference to a Carlsbad water cure. He advises early analysis of the urine in a suspected case, considering that the recognition of one case of diabetes at its commencement is of greater importance than the diagnosis of ninety-nine cases of advanced diabetes. To patients in the former class the attendant may promise a long survival, while to those in the latter he can only offer to prolong for some years a miserable existence. J. J. C.

Surgical Asepsis. Especially adapted to operations in the home of the patient. By HENRY B. PALMER, M.D., Consulting Surgeon to the Central Maine General Hospital. Ninety Illustrations. Pages vi-231. Size, large 12mo. Extra cloth. Price, \$1.25 net, delivered. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

We suppose this little book has a place if you can only find it. It would, no doubt, be useful to a recently-graduated doctor or nurse, who has some work to do in a private house, for it supplies the required amount of material with which to spoon-feed such a one. At the same time one cannot help thinking that there is a time in the career of everyone when he must begin to think for himself. There are many illustrations, the like of which one may find in an illustrated instrument catalogue, and a few showing a room in a private house "before" operation and "after." We can commend the book-making, and congratulate the F. A. Davis Company on their part of the work. F. N. G. S.

Bacteria in Milk and Its Products. Designed for the Use of Students in Dairying and for all others concerned in the handling of Milk, Butter and Cheese. By H. W. CONN, Ph. D., Professor of Biology, Wesleyan University. Forty-three illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street, 1903. Canadian Agents: Chandler & Massey Limited, Toronto and Montreal. \$1.25 net.

The demonstrated connection between milk bacteria and the distribution of certain diseases has brought the subject of bacteria of milk products forcibly to the attention of boards of health and sanitarians. To meet the needs of such persons and all others interested in the handling of milk is the purpose of this work.

The nature, types, growth and sources of bacteria in milk are each treated fully in separate chapters. The chapter dealing with the relation of milk bacteria to health cannot fail to interest physicians. Diseases discussed under this heading are tuberculosis, typhoid fever, diphtheria and intestinal disturbances, in which a diarrhea is an almost universal symptom.

All persons directly or indirectly engaged in handling milk should read this little work. A. F.

A Thesaurus of Medical Words and Phrases. By WILFRED M. BARTON, M.D., Assistant to Professor of Materia Medica and Therapeutics, and Lecturer on Pharmacy, Georgetown University, Washington, D.C.; and WALTER A. WELLS, M.D., Demonstrator of Laryngology and Rhinology, Georgetown University, Washington, D.C. Handsome octavo of 534 pages. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Flexible leather, \$2.50 net; with thumb index, \$3 net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

This is a unique work in medical lexicography all through, and represents an enormous amount of labor. It is not a medical dictionary, in that it gives the meaning of certain words, but the reverse. It supplies the phrase to express the idea. The book, to our knowledge, has no prototype, so that the authors have had to use their brains, and they have had no similar work to take hints from.

The Thesaurus will be found of the greatest assistance to those who have some little difficulty in giving expression to their thoughts in public speaking or literary work. The cross references from one caption to another, and the synonyms, will be found to add to the value of the book very much.

Manual of Intragastric Technique. Practical Lessons in the use of Apparatus for the Diagnosis of the Stomach. By GEORGE HERSHELL, M.D.(Lond.), Fellow of the Royal Medico-Chirurgical Society. London: Henry J. Glaisher, 15 Wigmore Street, Cavendish Square, W. 1903.

This work contains 166 pages including an index. The instruments used are well illustrated and described, and indications and contraindications for their use are carefully noted. A chapter of twenty-four pages is devoted to examination of stomach contents. This book is thoroughly up-to-date, and in reading it one feels that he is following the author through his daily work and receiving the benefit of his experience in all the little points of technique which make for success in intragastric work.

W. J. W.

The Woman Who Toils. By MRS. JOHN VAN VORST and MARIE VAN VORST. Toronto: George N. Morang & Co., Limited.

In these days of strikes among the workmen and women, dull, indeed, must be a public that is not keenly interested in the struggle of labor against capital. This book deals almost entirely with individual labor. Two ladies assume the clothing and simulate the manners of workingwomen, and seek and obtain positions

in several large factories and manufacturing establishments in the United States. They relate minutely their experience. Physicians should read this book, for in every city a practitioner counts many among his patients who live out their life's little day amid such surroundings as the authoress simply yet forcefully describes.

W. A. Y.

Gynecology. A Text-book for Students and a Guide for Practitioners. By WILLIAM R. PRYOR, M.D., Professor of Gynecology in the New York Polyclinic Medical School; Attending Gynecologist, New York Polyclinic Hospital; Consulting Gynecologist, St. Vincent's Hospital, New York City Hospital, St. Elizabeth's Hospital. 163 illustrations in the text. New York and London: D. Appleton & Company. 1903. Canadian agents: Geo. N. Morang & Co., Limited, Toronto.

This is a purely gynecological text-book for students and practitioners, and the author has collected from his extensive connections with the New York Hospitals an abundance of information that cannot but be a valuable aid to those studying along this line of practice. The work has been divided into two parts, the first part describing the diseases, and the second the operations. This is useful, in that it is so much more handy for quick reference. The illustrations are uncommonly good and plain, and the author must be congratulated on having devoted so much care to the compilation of this work. It is deserving of a large circulation.

A. J. H.

First Principles of Otology. A Text-book for Medical Students. By ALBERT H. BUCK, M.D., Clinical Professor of the Diseases of the Ear, College of Physicians and Surgeons, New York; Consulting Aural Surgeon, New York Eye and Ear Infirmary, and the Presbyterian Hospital. Second edition. New York: William Wood & Company. 1903. Canadian agents: Chandler & Massey Limited, Toronto and Montreal.

So many text-books for medical students give no sign of the author ever having had anything to do with students, that it is a pleasure to run across one which is what it claims to be. Evidently the author has had to teach students, and still remembers their difficulties. If one may judge from the text he is a good teacher. Not only the medical student, but the practitioner will appreciate his work.

J. M.

E. Merck's Annual Report, 1902. Darmstadt, Germany, May, 1903.

This Report for 1902, as published by that well-known manufacturing chemist, Herr E. Merck, has been correctly termed "a report on the advancement of pharmaceutical chemistry and thera-

peuties." It is an up to date pamphlet dealing with all the most recent preparations and their therapeutic value; an index of diseases, symptoms and indications for treatment; and the approximate prices of the various medicaments. It will be found useful to the practitioner, and is well worth sending for.

The Care of the Baby. A manual for mothers and nurses, containing practical directions for the management of infancy and childhood, in health and in disease. By J. P. CROZER GRIFFITH, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania, etc. Philadelphia, New York and London: W. B. Saunders & Co. 1903. Canadian Agents: J. A. Carveth & Co., Limited, Toronto.

This work can be heartily recommended, especially to mothers and nurses, as well as to physicians. It is concisely written and not couched in purely medical phraseology, and hence will be a great assistance to the physician in being instructive to the mother, enabling her the more perfectly to appreciate his efforts. It has a valuable appendix and complete index.

A. R. G.

The Mystery of Murray Davenport. By ROBERT NELSON STEPHENS. Toronto: The Copp, Clark Company, Limited. Cloth, \$1.25.

A racy story; time, the present; locality, New York City; characters, ordinary, interesting, nice people, with one exception, Murray Davenport, and he is a conundrum, but he guesses himself in the end, and he certainly is a complex person, made up of body, soul and general cussedness, but he is very much worth while. Get him, read him, and label him for yourself.

W. A. Y.

Ear Symptoms as Aids in Diagnosis. By EDWARD MAGENNIS, M.D., D.P.H., late Clinical Assistant at the Royal London Ophthalmic Hospital. Bristol: John Wright & Co. 1903. Two shillings.

This little book of a hundred-odd pages may be carried in the pocket, and aid the general practitioner in making a diagnosis in many obscure cases. The section on the pupils as a means of diagnosis, and that on paralysis of the ocular muscles, is one which may profitably be read and re-read by everyone.

J. M.

Studies in the Psychology of Sex. Analysis of the Sexual Impulse, Love, and Pain, the Sexual Impulse in Women. By HAVELOCK ELLIS. Philadelphia: F. A. Davis Company.

The above is a treatise dealing fully with the subject indicated, and the work shows that the writer determined it to be thorough

and exhaustive. Literature from all sources has been canvassed, and we have evidently a frank discussion of the subject.

A. R. G.

A Treatise on the Care of the Expectant Mother during Pregnancy and Childbirth, and Care of the Child from Birth until Puberty. By W. LEWIS HOWE, M.D. Philadelphia: F. A. Davis Company, Publishers.

The above is a short practical epitome of recognized directions profitable to the expectant mother, and in the above form of practical use and convenience.

A. R. G.

Gordon Keith. By THOMAS NELSON PAGE. Toronto: The Copp, Clark Company, Limited. Cloth, \$1.50. Illustrated.

A charming summer novel; a breath of the south; some love-making, and adventure enough to keep the reader from napping, as he follows the fortunes, to success, of young Gordon Keith, the hero, the only son of a southern gentleman, and this fact, "like the cat the honest miller left to his youngest son, was his only patrimony."

Polk's Medical Register.—The eighth revised edition of this well-known work is now under way, and will appear in due time. Send for descriptive circulars, and do not be deceived by imitators. Polk's Medical Register and Directory has been established sixteen years. R. L. Polk & Co, Publishers, Detroit, Mich.

THE International Journal of Surgery Co., of 100 William Street, New York City, have on press at present a work entitled "Nose and Throat Work for the General Practitioner." The author is Dr. G. L. Richards, Fellow American Laryngological, Rhinological and Otological Society; Fellow American Otological Society; Associate Editor *Annals of Otology, Laryngology and Rhinology*; Otologist and Laryngologist Fall River Union Hospital, Fall River, Mass. It is profusely illustrated, bound in cloth, and covers about 375 pages. The price is \$2.

Physicians' Book-keeping.—It is a well-known fact that book-keeping to the average physician is his *bête noir* and that professional men would be far better off financially if they paid a little more attention to the business side of practice. Nowadays it costs a mere bagatelle to employ someone to keep the books written up and accounts rendered, as they should be, once a month, especially when results are looked at. A practical accountant, with the best of references and long experience, wishes to make arrangements with physicians to keep their books and render their accounts, in the evenings. His terms are very moderate and he solicits a personal interview. Those interested address, "Accountant," Box 71, CANADIAN JOURNAL OF MEDICINE AND SURGERY, TORONTO.

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Original Contributions.

THE MEDICAL EXPERT AS A WITNESS.*

BY W. R. RIDDELL, ESQ., K.C., TORONTO.

Mr. Chairman and Members of the Medical Profession,— You will allow me to say, in the first place, that I decline to look upon myself as an entire stranger in a gathering of medical men and women. True it is I do not have the honor of being a doctor of medicine, nor do I practise medicine (for which I duly offer up thanksgiving every day of my life), but I had the good fortune during my earlier years to study medicine for a short time in the same office as my friend, Dr. Powell; and that has given me an interest in medical subjects and in medical men which I have never lost, and which I trust I never shall lose.

The very interesting paper of Dr. McKenzie, and the still more interesting discussion which followed, struck me as I sat on the platform as furnishing a strong illustration of what Herbert Spencer and the evolutionists call differentiation, and the advance and evolution from the homogeneous to the heterogeneous. Now, when I studied medicine there was no such difficulty about diphtheria as there is now. The diagnosis, the treatment, the prognosis were perfectly simple. (Laughter.) If the neighbors' children had a sore throat and died, and my child had a sore throat, then it was diphtheria. If they had not died of sore throat, then it was not diphtheria. The treatment, too, was perfectly simple. Once a case is diagnosed as diphtheria—take a stick about six inches long with a piece of cotton rag more or less clean (they had no antiseptic or aseptic methods in those

*Address delivered at the meeting of Ontario Medical Association, Toronto, June, 1903.

days) tied around one end of the stick, and make it tight with thread, No. 30 preferred; dip that into a solution of nitrate of silver and swab out the throat. That was the treatment, and the only treatment. Prognosis, too, was certain. (Laughter.) Repeat that treatment. If the child gets better, it probably will not die. (Laughter.) If it takes a turn for the worse and dies, then the case is hopeless. (Laughter and applause.) There were no cultures in those days. They had beef tea, indeed, but it was used for feeding the patient, not the bacteria. They had nothing in the way of incubators and the like that you put into your waist-coat pockets, or into the axilla of the patient in order to develop bacteria. There was then no difference of opinion as to diagnosis, treatment, prognosis. Now, I see no two medical men seem to be able to agree except on this point: "If you get a really costly medicine, the more of it you administer the better the result." (Laughter and applause.)

Like my friend, Dr. McKenzie, when I was asked to read a paper before this Association I had some little difficulty in coming to a conclusion as to what kind of paper would probably answer your requirements best. As, however, I had already, at the request of the Medical Faculty of the University of Toronto, prepared a series of lectures for the medical students upon the subject of "Medical Men in Court," I thought it might not be out of place to take part of one of these lectures, change it somewhat, and adapt it to the "meaner capacity," as the Shorter Catechism has it, and give you that. That will account for the didactic tone which I propose to use. You will please consider yourselves students who are sitting at the feet of Gamaliel and learning from him.

In the English language the adjective has three degrees of comparison: The positive, the comparative, and the superlative. The noun substantive, with the exception of a very few words, has nothing of the kind. One of these exceptions is the useful and expressive word "liar." There are three kinds of liars: there is the liar, the d——d liar, and the expert witness. (Laughter and applause.) Now, that gibe, that proverb, derives most of its vogue from the medical witness. And there is a modicum of truth concealed in it although when one considers what it means, and what it implies and considers what a medical witness, as a rule is, it will be found to be grossly extravagant and grossly unjust.

There are two kinds of witnesses: the common witness, who speaks as a matter of fact; the expert witness, who speaks as to a matter of opinion; and when we remember that an expert witness is only such when he is speaking as to a matter of opinion,

and that in the case of opinions there are, and always have been and always will be, differences, it is not at all wonderful that expert witnesses do not agree in their testimony.

Concerning opinions there is constant disputing; and it is not doctors alone who are constantly disputing. Take the clergy: the *odium theologicum* is worse than the *odium medicum*, and the *odium forensecum*, and both of these, God knows, are bad enough. The clergy of one church believe that the theology of another church is based upon error, and they know that the opinions of the clergy of that other church are wrong. Members of my church know that they are right, and the other fellows are all wrong. Orthodoxy is my doxy; heterodoxy is your doxy. Lawyers do not agree, even when they are put on the Bench. Occasionally a lawyer is put on the Bench; it is not always the ease, but still those who are lawyers are put there. (Laughter.) I have in my mind more than one ease of pure law, not matters of fact at all, but matters of opinion, where one court has given a verdict for the plaintiff, this has been reversed by the next court, that again reversed, and then in the Supreme Court this last was again reversed. The only reason, perhaps, this was not reversed again was because there was no other court to go to. Politicians—people generally—do not agree in their opinions. Over there in the adjoining Park in the Legislative Assembly this afternoon they will be discussing a matter of opinion, and if you will give me a list of the people who are going to vote, if you tell me their names, I will tell you the majority on one side or the other. Opinions must necessarily differ, and therefore it is that the expert witness who is called upon to swear, not to a matter of fact at all, but to a matter of opinion, almost as a matter of course differs from another expert witness.

Now, you will say that I am travelling very wide from my subject, but that is not really so, as I hope to be able to show you in a few minutes. What is the object of a court? What is the witness in the box for? What are courts of justice kept up for? They are kept up for determining facts, in the first place, and then applying the law to those facts so found; the judge applies the law, the facts are found by a jury, or by a judge sitting instead of a jury—and I shall for convenience use the word “jury” instead of judge sitting for a jury. The facts so to be found by the jury are not to be found by them from their own knowledge. In the jury box, as everywhere else, one is entitled to use common knowledge, that is, what everybody is supposed to know. Everybody is supposed to know that we have night and day, there are seven days in the week, that water is wet and fire will burn, and that when medical men get together at dinner they have a

good time. (Laughter.) I won't say anything further on the latter matter, lest it might lead to painful misapprehensions. (Laughter.) A jurymen or a judge has no right to found a verdict upon his own knowledge of facts. He determines the facts upon the evidence given in the witness box and by the witnesses; and therefore it is that the witness is probably the most important man in the court of justice after all, although you will find difficulty in convincing the unhappy litigant of that.

What is the object of cross-examination? It is to determine two things. The object ultimately is the truth, and that is determined in two ways: finding out first of all how near the witness is trying to tell the truth, and secondly, how far he is worthy of belief even if he is trying to tell the truth. Now, both of these two matters must be considered. A man may be perfectly truthful, telling what he believes to be the exact truth, and by reason of his want of capacity, or by reason of some idiosyncrasy, which can only be determined by careful investigation, he is not succeeding in telling the truth.

Again, the value of the evidence of a witness depends upon a number of things. In the first place, it depends upon the opportunity which the witness has had to investigate the matters concerning which he is giving evidence. This is the case with the common witness as well as the expert witness. I have heard medical men swear (I have never heard medical men say it outside of the witness box) that a man who has examined a patient once will have as good an idea of the extent of his injuries, and the probabilities of his making a rapid recovery, as the man who has been with him from the time the injury took place, who has waited upon him, prescribed for him over and over again, who has joyed over him when he has shown signs of recovery, and whose heart has gone down as his patient's health has gone down. However that may be, the means of observation which a witness has is the first thing of importance. The second thing is his capacity to observe, his capacity to form an opinion, his capacity to understand what he sees. That is a matter largely of education and of experience. Again, the value of the testimony depends upon a man's memory—how accurate is a person? how retentive is his memory? does he remember what he thinks he remembers? Is it the fact that he is telling the truth concerning something that has taken place in the past? Another thing is his capacity to say what he means. You may think that is an extraordinary statement; it is not. No man who has been much in a court of justice but will agree with me in this. Not one man in twenty appreciates the value of an accurate use of the English language. Not one man in twenty can express exactly what he means so that

there cannot be any mistake about what he does mean. The capacity to express one's thoughts, the ability to put in words and in decent English what it is desired to convey, is another thing upon which the value of a witness's testimony depends.

Another thing is his honesty. Medical witnesses are generally honest. The medical man who will allow himself to be approached, and who will give evidence contrary to fact or contrary to his real opinion, for the purpose of enabling the plaintiff to get a larger verdict out of a railway company is as much a thief, is as much a criminal, and should be behind the bars just as truly, as a man who opens a bank with dynamite. (Applause.)

Now, the object of cross-examination is to determine how far is the man's testimony to be relied upon, how far is what he is stating the actual fact. I remember once defending a man and woman for murder. A very graphic description was given by a young girl about thirteen or fourteen years of age of a whole series of circumstances, which she detailed so well and vividly that one could see that they led to an irresistible conclusion, that the man and woman in the dock were guilty of murder. I cross-examined at some length and with some care. Her story wavered. Each time we approached the story from a different point of view it changed. One little circumstance was modified, and little contradictions began to appear. By a little careful leading, or perhaps by a good deal of careful leading, she began contradicting her story in important points. Before the cross-examination was through she had contradicted her whole story, and that not by inadvertence, but of intention. She had yielded to the suggestion of the stronger mind. She had been living for three months in the home of a well-known enemy of the prisoners. The judge discharged the prisoners, and would not allow the matter to go to the jury. I was asked by a clergyman ten minutes after the acquittal, "How could you get that girl to lie the way she did; did you think it was honest or right to ask her those questions?" I answered, "Yes, eternally so." He said, "Why! you knew she was telling what was not true?" "Yes, but I wanted the jury to see that girl had a mind of such a character as to yield to the suggestion of a stronger mind—that she would allow to be instilled into her brain thoughts which had never been there, and thoughts which ought not to be there, thus showing that she was easily influenced." Then, taking the fact that she had been in the house of a well-known enemy of the accused for two or three months, the danger of allowing such evidence to procure a conviction was obvious.

I say, cross-examination is one of the most valuable of weapons for arriving at the truth, and I speak of it because there

is, at the present time, a feeling in some quarters against cross-examination. Take some of those very papers which are now crying out against cross-examination, and let anybody charge them with libel; and let that person be put in the witness box in order to give evidence against them, and they will be the very first person to say, "It is the duty of a counsel to test in every possible way how far the witness is trying to tell the truth, and how far the witness is succeeding in telling the truth." Of course, this will lead to inquiry into matters apparently irrelevant, but all proper cross-examination is directed to the sifting of opportunity, capacity, honesty.

Now, a witness has two duties. I suppose that probably will be news to you. I do not think you will find this in any of the books of medical jurisprudence. I don't think you will find it in any book of any kind—but I am not a man of theory, I am a man of practice. My profession calls upon me, and I am employed to get verdicts, if I can; that is my life-work, and I propose to get verdicts by every honorable means, and I don't care one rap for theory. Your books tell you the witness has got only one duty, that is, to stand up there and tell the truth. That is grossly wrong. I have heard witnesses tell the truth in the witness box and nobody believed them. A witness has more than one duty. In addition to actually telling the truth, a witness owes it to himself and to his position to tell the truth in such a way that the jury and spectators will believe him. Your text-books tell you, "Go into the witness box and answer the questions truly, and then leave the witness box secure in the approval of your own conscience." I say, however, that not only should a witness tell the truth, but he should tell the truth in such a way as that people will believe him—and that, after all, is the main object of a witness—to say something which will be believed and have an effect upon the verdict.

Now, that leads me a little further. A witness box is no place for frivolity. A witness box is no place for jesting or trifling. The man who has taken an oath to tell the truth is under a serious obligation, and that obligation he ought to have in his mind before he goes into the witness box. Those are common-places, perhaps, to you, but none the less they are exceedingly important. If a man is going to be a witness, it is his duty to prepare himself by finding out all the facts concerning which he is likely to be asked. An expert witness who is going to be asked about his opinion ought to prepare himself with authorities backing up his opinion; he ought to be in a position to justify his opinion to the very utmost, because if the cross-examining lawyer is worth his salt that opinion may be severely tested. Physical

preparation is not out of place. An important medical witness being cross-examined by a lawyer who understands his business, has a physical strain put upon him which is not light. The lawyer feels it, but it is his business, he is at it every day, but the witness has an unaccustomed physical strain, and therefore one going into the witness box ought to see to it that he is as far as possible physically fit. One's personal appearance is not unimportant. The man who is decently and properly dressed will receive more consideration at the hands of the judge, and at the hands of the jury, than the fop, or the sloven. The medical profession never stood higher in the estimation of the people than when they had their distinctive garb of the furred robe, the cap, and with this the gold-headed cane. The judges are wise in their day and generation when they insist on lawyers wearing the gown and being properly clothed in court. The rule of old Polonius still stands good:

“ Costly thy habit as thy purse can buy,
But not expressed in fancy ; rich, not gaudy :
For the apparel oft proclaims the man.”

These are preparations, things you consider before you go into the witness box ; matters which will, or may, bear upon the value of your testimony. They won't help you to tell the truth, but none of them will hurt you in the slightest degree. All will assist you in that important matter, *i.e.*, making the truth tell.

Then in the witness box I have been in the habit of laying down for solicitors rules which will look almost absurd to you when I mention them, but rules which in themselves have a wide usefulness, and ought to be borne in mind by every witness. One-third of the time of trial courts is taken up with perfectly useless blather—not only useless in itself, but doing harm in beclouding proper evidence, in belittling the other parts of the case which ought to receive attention. Now, while judges sometimes, and lawyers oftener, are responsible for that, to a great extent witnesses are also responsible for that in no few cases.

First, do not answer a question until you understand it. Now, that seems silly. Go into a court room and listen to a trial ; you will find witnesses persist in answering something they are not asked, and in not answering what they are asked. If in the witness box you do not understand the question, or if the question is complicated, you have a right to have the question put in such a shape as that you do understand it, and to have it put in such a shape as that you can answer it without deviating from the strict line of truth. If the lawyer declines (and there are men who will decline) you have a right to appeal to the judge, and it is the judge's duty to see to it that the question is put in

such a way as is understandable, and that it may be fairly answered.

In the second place, when you do thoroughly understand the question, answer it as briefly and concisely as you can consistently with the truth. If a question can be answered "Yes" or "No," answer it "Yes" or "No." If it cannot be answered "Yes" or "No," refuse to answer it "Yes" or "No." (Applause.) It is a well-known trick in my profession to insist, with a great air of indignation, upon a direct answer to a direct question. Of course, that is simply "talkee-talkee" for the jury. Sometimes the witness yields to the insistence of the counsel and answers "Yes" or "No," when he feels and knows no such answer should be given. This is wrong. If a question cannot be answered "Yes" or "No," you have a right to appeal to the judge, and almost invariably the judge will put things right. Do not, however, be hypercritical. The counsel for the side upon which you have been summoned as a witness will give you ample opportunity to explain your answer, and frequently the judge will say, "Answer the question. You will have an opportunity to explain." Insist on this opportunity.

Thirdly, and a more important rule than either of the others: when you get through answering a question, shut up. (Applause and laughter.) Men will talk and talk and talk, and the more they talk the better the cross-examining counsel likes it, because it is absolutely certain if a man keeps his mouth wide open long enough, he is going to put his foot in it. (Laughter.) In my experience I have seen more cases lost (I mean incidental matters) by witnesses going on talking after they had finished their answer to the question than by anything else. If the lawyer understands his business you may be sure he will ask questions enough. If you answer all the questions he will put to you, you will be doing all the law calls upon you to do, and enough to pay for all the remuneration you get. I have been asked: What should you do supposing a question should be put in such a way as that any answer to it would be misleading? Say so. You have rights as well as the cross-examining counsel, and your rights are bound to be respected. Say, "I cannot answer that question in a way that will convey the proper impression." Have the question put in such a way that you can answer it. These three simple rules seem probably almost like baby talk, but if they were observed at least one-third of the time taken up in our courts would be saved, and at least one-half of the humiliation and mental pain which witnesses experience, both before and especially after they leave the witness box would be prevented.

Don't despise the cross-examining counsel. Poor chap! he

may not know the difference between a heart and a liver if he were to see them. He may know nothing of medicine generally, but if he is worth his salt, and if he is doing honest work for the fee that is paid to him—I withdraw that—promised him—(laughter)—he will know as much about the subject for the time being as you do. Don't despise him; he is in a different line of business, but if he is a first-class man, he will, for the time being, know his subject; and if he is anything like a first-class man he will at least make the jury believe he knows more than you do about it.

Don't get into jangles. Don't cross swords in the way of wit with the counsel. That is our play, what we are after. Give me the witness that will jest with me, particularly the expert witness, and in nine cases out of ten he will give me what I want. If the cross-examining counsel laughs at you he has either got you on the hip, or you have hit him hard. (Laughter.) If he laughs at you, then as a rule you have got him, but if he laughs with you, you might as well leave the witness box.

I have seen cases lost by witnesses being too smart. I have in my mind now a case (I think there is at least one gentleman in this hall who will remember it) where a medical witness, called for the defence, used the word "imagination" in reference to the diagnosis of one of the medical witnesses called for the other side. Plaintiff's counsel knew that was all he wanted. Of course at once he was glowingly indignant at the idea of a member of a liberal and learned profession talking about another member of that profession using his imagination. It was perfectly useless for that medical man to say that he was using the word "imagination" in Tyndall's sense, "the scientific use of the imagination." The jury did not know Tyndall, and did not want to. All they knew was that one medical man ventured to say another medical man was imagining things, and promptly gave a verdict for the plaintiff.

Another medical man of the highest standing had the effect of his evidence absolutely destroyed when he admitted to me in the witness box that he was an advocate. It was perfectly useless for the gentleman to say that when he used the word "advocate" he meant an advocate for the truth. The jury knew well what an advocate was. That he was a lawyer employed and paid to speak upon one side.

Don't run and talk outside of the question, and "don't get gay."

Now, Mr. Chairman and gentlemen, I have talked already longer than I intended. I have been trying to say to you something practical, and these are not "Counsels of perfection." I

know medical witnesses who, under cross-examination (while I daresay they never heard of any such rules as these I have been speaking of), have followed exactly the spirit of these rules, and as though they had them in mind. Any medical man who respects himself, and is willing to do what is right, need have no fear of his position in the witness box under cross-examination if, first, he understands his business; secondly, he takes pains to prepare himself; and thirdly, he is willing to tell the truth.

Gentlemen, I thank you very heartily for your kindness and the honor you have conferred upon me. If anything I have said will in the slightest degree assist you in the future, I am more than repaid. (Applause.)

THE COUNTRY DOCTOR.*

BY JAMES S. SPRAGUE, M.D., STIRLING, ONT.,

Author of "Medical Ethics and Cognate Subjects," etc.

THERE is no composition in music which so pleasurably affects the soul of man as that termed a medley, provided such include selections (although not classical according to modern ideas) that we heard in earlier days; those dear old melodies, such as our mothers were accustomed to sing, and our fathers delighted to hear. The memory of the good old times is awakened thereby. The present moments freed from despondency, less dismal do they appear, and the future made fair and bright, and projects of pith and moment seem to have no barriers towards being consummated, or hopes and future achievements to lose their brilliant coloring.

Brief sketches in medical literature or other writings serve equally to give us a pleasurable and instructive hour when relaxation is sought, often demanded, by us, who have bared our breasts and kissed the rod in the endeavor to show to our patients "conclusively and clearly, that Death is a stupid blunder merely, and not a necessity of our lives."

With these metaphors or similitudes as introductory, it would appear as desirable that for our title "Medical Medley" were better, for there are those who prefer that we designate or distinguish ourselves not as doctors, but physicians, clinicians, practitioners, practicians, therapeutists, and other highly elaborated names, which philologic research does not in every particular claim or clearly sanction. Therefore, "The Country Doctor" as our headlight for this paper will remain, and our authority for its adoption is, that the title of Doctor of Medicine was first given in 1324 by the University of Astio, in Italy.

It is admitted that he who selects to write these segments from the swirl of "time and tide," should be one of those whose aspirations, virtues and impulses he has studied many years. The same ambitions that possess the soul of the recent graduate, are such as we held in early days.

They have not, however well planned, been realized in many instances; the prizes have been few, the blanks have been too numerous, illustrating too forcibly that

"Our wills and fates do so contrary run,
That our devices still are overthrown,
Our thoughts are ours, their end none of our own."

* Address delivered at the meeting of the Canadian Medical Association, London, August 26th, 1903.

The country doctor is he whose early life was that of the country or village. As a rule he is the best gift of a highly honored and self-respecting family of sturdy yeomen, especially chosen to give honor to his name and family, and to be the equal in merit and nobility of the family doctor who lives in a nearby village. Such are the incentives which arouse the young man. An experience of a few years as a Public School teacher enables him to be self-reliant and to develop personality, really an egotism. Such preparatory work is rivalled only by attendance during a few years, or better still, the full course of years required for the degree of bachelor in arts or in science. Self-reliant, methodical, really sober in judgment, self-respectful and studious, fearless and tireless, is he; he should be set apart for medicine is the opinion of the family doctor, and the die is cast.

The "pale, sickly and pious" brother is evidently called to serve the Lord. Both bend their necks to the yokes as easily as they contracted croup in early life.

This introduction of the future spiritual adviser or

"Leader of faithful souls, and Guide
Of all who travel to the sky,"

is employed to serve as an illustration of the life-work of these brothers, whose lives are directly associated with the people, whose lives in consequence of this co-mingling or association are recognized as chief factors in the advancement and maintenance of sanitation and morality. The future clerical personage has been presented as pale, sickly, and pious. Such an assertion is not applicable nor desired, although too commonly believed as worthy of this definition. No profession calls for greater vigor or moral worth than he, who is to assist the country doctor, should possess; co-workers in many enterprises, in fact, for the wrongs that need resistance, or causes that need assistance, are those of the highly-educated clergy. The poorly educated among such men (and such are too numerous) are the enemies of progress, in fact, our enemies. Some one has said: "Such minds having no living message for any one, they are merely speaking tubes through which the past comes down to us. God help those who have to rely on what they have to give."

This world with its sunshine and flowers; God's Word in the stars; the progressive development of man's goodness; abundant evidences of increasing philanthropy and practical benevolence are too seldom announced from the pulpit. Too much of his eloquence is employed to preserve moss-covered creeds and dogmas, apparently too full of crudities and cruelties. Shorn of such tendencies, this "vir pietate gravis," this co-worker of ours,

would help more noticeably in the progress of civilization, and more and more would our professions conduce to each other's interests—not only to our interests, but to those of the dear people whose servants we are.

Should not such a friendship and mutual and uplifting interest exist between us as held by Nisus and Euryalus, or Pylades and Orestes? If so, the saying, "where three medical men are assembled, two of them are atheists," would be untenable or incapable of proof.

The preparation for the long-sought-for degree of doctor in medicine having been fulfilled, our young doctor, thoroughly disciplined thereby, advances to the footlights. The whole profession in some respects, and those in his field of labor, act as the audience. His destiny is to see that "Life's a varied light illusion, joy and sunshine, light and shadow," and that no illiberal thought or motive should characterize his doings. He learns and has been taught it, at least (if he has been properly taught) that catholicity reigns supreme in medicine, that whatever is administered as best is the best, our only limitations in regard to therapeusis being the sun, the air, the earth and the fulness thereof. Such is the liberality of our profession. While upholding, yes, venerating, the honored teachings of Hippocrates, Celsus, Galen, Eristatus, Heraphilus, Heraclides—not unmindful of the labors of Boerhaave, Cullen, and of others not less illustrious, whose services are memorable—our young doctor, contrasted with his brother, the clergyman, is free to accept or reject such teachings and yet be termed regular in practice. He learns and is learning constantly that his mission on earth is a struggle, an unceasing progressive struggle to find truths—medical truths—and to live by them. It is his to have the "keen spirit which seizes the prompt occasion, makes the thought start with instant action, and at once plans and performs, resolves and executes." To him his profession is, and ever will prove, a philosophy which never has rested and never can rest. It knows no other law than that of progress. He learns too, frequently, that a point which but yesterday was invisible, is its goal to-day, and will be its starting-point to-morrow.

History reminds us that new worlds have arisen, and that we have lost old nations. Equally can the same changes be adduced in respect to the numerous theories and schools of the past ages and the introduction of new ideas, but "he who beholds the bright countenance of truth in the quiet and still air of delightful studies," and finds encouragement in the thought that some loved theory may be either abandoned or be recast, or modified, can and will ever be able to keep a warm heart in and for his profession,

and otherwise escape that condition which may justly be termed mental fossilization, a condition too frequently observed and antagonistic to the spirit of the age.

I now introduce the country doctor who, possessed of such nobility of soul, such glowing aspirations, would be able, in other and more or less honored fields of labor, to advance himself to the highest and most useful point obtainable, but such is not his destiny. His work is and will be such as acquires much honor, and apart from professional services, no more useful citizen or benefactor or confidential adviser could be named. I speak as one who has full authority to make these statements, as one who, for more than three decades, has been very closely associated with such men, not only with men in this, my native province, but in early professional life with colleagues, country doctors in a far distant state. Those days were days not only of perils but of discomforts and disadvantages. Our faithful and tireless bronchos conveyed us and our saddle-bags to widely scattered homes.

"I scarce can think those days are gone,
And yet like dreams they are no more."

Those were the times in which we respected our seniors, who taught us much, not only in practice, but in ethics. Fraternal relationships then were stronger, and we well knew if consultations were necessary, that our consultant would not try to rob us of our patients. To-day the consultant has to be carefully watched in too many instances, and the newly-fledged doctor too frequently is ignorant of professional honor for his elders.

It is an admitted conviction that in our staunch adherence to a code of moral law, and in the general and intelligent honesty of our members, we, although subjected to every form of temptations, many great and constant, can find few illustrations of violation of our code or principles of ethics, or of honor. No other occupation among men offers more abundant material for development of all that is best, that is useful, and that is noblest. When it is considered that no teachings during collegiate life are given on the subject of medical ethics, it is evident that a high grade of morals has either been inherited, or has been acquired in practice by the average doctor. Although our profession is in the keeping of able men, many dangers exist, and are appearing, which threaten our best interests. While the expenses of living and the demands of our services have greatly increased, have we arranged our fee tariffs to such changes? Are we not capable of being aroused to recognize that we are becoming more and more enslaved by several widely known pharmaceutical companies?

Are we not able to note that our medical journals—fortunately not all of them—are greater friends to such companies than they are to us? Is it not time that our Provincial or State Medical Boards name such journals whose columns and advertising pages have the almanac character? While these so-called pharmacal companies are announcing their so-called ethical goods to us, too frequently is the poor and struggling doctor called to pay out his hard-earned money for them, and learns, probably too late, that if he had studied his *materia medica* and other works relative to this subject in preference to the price list of such companies he would have served his patients far better.

The evidences furnished that old medicines are not totally abandoned, but becoming more studied and used, are many and encouraging. Should not we possess qualifications in *materia medica* equal, if not superior, to those demanded of pharmacists? If so, is such the case? Would it not be advisable that we adhere strictly to the employment of such medicines and their compounds as are named in our standard works on medicine, and not encourage preparations praised by the pharmacal company and a few well-paid officials connected with medical journals? We should prepare our own tablets and compounds; if not, our local druggist can do such work, and by so doing the interests of each other would be better conserved. Opportunities for the study of qualifications of medical students in their primary work are being afforded me in the position of Examiner in *Materia Medica* and Pharmacology for our College of Physicians and Surgeons.

These reflections (or, shall I name them suggestions?) are introduced for our best consideration. Heart-to-heart talks such as I so humbly present, are what we of the country and of the walled city so earnestly need. Although "each life is an existence viewing itself too much through a single medium," it is well for us to observe that medicine is a very jealous mistress, and the most difficult of all arts to acquire, and at such annual gatherings of this association, is it not but our rights to make confession by naming our sins of omission and commission, to review the past, consider our present interests, and to make attempts to look into the glorious future. For Cicero says that questions of any importance have the past, the present, and the future to consider (*tria esse omnino genera quae in disceptationem cadere possint: quid fiat factum futurumve sit*).

The average longevity of members of our profession is stated to be fifty-six years; if so, the average working period cannot much exceed thirty years, and we will assign the first ten years to that period in which a young doctor becomes established in practice,

and if before the closing of this, the first decade—this bread and butter period, as Sir Andrew Clarke calls it—he has married brain and wealth, his future will have less clouds, for the richest doctors with whom I am acquainted are those who, like the penniless scions of nobility, believe that wealth is but a fair gift in exchange for a title in the family, and act according to such beliefs.

The country doctor is of essential interest in any community—in fact, is he not a necessity, and so regarded? The establishment of the town-pump is equally so regarded, which is maintained and kept in order, and no one appears willing or able to bear expenses in the repairs thereof. His practice is, of course, at times for the money consideration, and his considerations are (if he considers) that if the liveryman had made equal trips to his and been paid the usual livery rates, he would have been better off than he as regards shekels of gold and of silver. He eateth side pork with those who eat side pork, and drinketh milk with those who drink milk. At times he drinketh port or sherry with those who drink some variety of chosen border blends of mountain dew, whose merits he announces with no sour disdain when away from home; his breath is that of new-mown hay, or that of frankincense and myrrh. His experience during this first decade is such that he estimates it as passing the understanding of men, in payment for which he is paid principally in hay, oats, and other products of the farm. Apparently satisfied is he if he can meet his payments for drugs and medicines, and be recognized as popular; unfortunate, however, is he if ambition should tempt him to erect too costly a residence. Such a step he, like others in many similar cases, will have reason to regret.

Perchance he hears of the success of a former fellow graduate, and his ambition, too, is exercised to adopt a specialty. Such prospective work occupies much of his thoughts during idle moments, and he is the best material from which the safe specialist emanates, but it is needless to state, such a hope is very seldom realized. He becomes more fixed to his locality, and becomes a specialist in more than one department; and the second decade finds him still there apparently afraid to move, yet anxiously looking for a government appointment; in fact, any appointment wherein there is a surety of a good living. Tired out is he, worn out really in too many instances, and really when he has become experienced, and thus more useful; but, strange to state, such is not the belief of his people. They want a change, yet he is always with the dear people, and a quarter of a century passes by. Verily,* the thirty-year limit is being rapidly reached, and he is having for pastime the raising of the earliest potatoes, or the biggest

beets and cucumbers; or, perhaps, reaches the presidency of the county or district cattle show, or becomes the master of the village Masonic lodge. In quiet moments he feels inspired, and is anxious to give the world—the medical world,—many foolscap pages of his experience, but as those who look out of the window become darkened and desire fails, the world loses much, yet he forgets not those days when the usual “Hello, hello, doctor,” was answered “All right” by him, and a few hours found him ten miles from home in the Bethel Settlement doing a successful version, and succeeding in overcoming much and protracted inertia. How pleasant was it to arrive home, wearied in body and soul, to find in reviewing his books that he succeeded so well. Inwardly he feels as if he were a god among the people. The scene changes when he hurriedly opens a note from the editor of his best medical journal, which invites his best contribution on the financial aspect of medicine, and his wife requests a few shekels to pay her subscription to the Central Asia Missionary Society. The poetry of life and the romance of medicine suddenly vanish, for he reflects that, although the laborer is worthy of his hire, his account in the Bethel Settlement has not been paid him, and the prospects of reward are not too inviting. Such thoughts do not long disturb him, for he is rushed to the third concession to do some sewing on Jim Sharp—the reaper has run away, as Whitcomb Riley describes it. He fashioneth splints from the rail fence, and taketh dinner with the men. He sayeth grace, and pronounces the pork, potatoes, and onions, and gelatinous pie equal to the best. The open cylinder threshing machine, or the more modern wind stacker, relentless, ever starved and insatiable, does some work for him ere the evening shadows fall, and before he rests he has heard confessions that would break up whole families and neighborhoods. He recommends balsamics to the deacon, and terms his disorder nephritis, yet both know better, and probably it will never be known—“*Domine salve nos.*” These illustrations are those seen by the country doctor—the most revered, the most useful man, he who has the heart within and the God overhead impulses—“he has seen old views and patients disappearing one by one, and is entitled to a furlough for his brain and for his heart.”

We cherish the memory of the old village doctor, the old country. May he ever exist.

What greater birthright can any intelligent or ambitious man claim and cherish than that his name is in the list—the long list of *Æsclepiadæ*, of the healers of men—a list, says Oliver Wendell Holmes, which stretches unbroken to the days of gods and demigods, until its earliest traditions blend with the story of the

brightest of the ancient divinities. Can crowned heads claim a lineage more noble? Can the Church, with its apostolic succession traditions, its lives of patriarchs, of apostles, and martyrs, claim a greater or more honored progeny? Are not such reflections, and the statements that coronets have been placed on the heads of many of our learned brethren, quite enough to fill our cup of ambition? Who then among us is not, or has not been, ambitious to be the least among them, the country doctor?

In the words of William Cullen Bryant:

“ We seek not the praise of the love-written record,
The name and the date inscribed on the stone ;
The things that we do, let them be our story,
Ourselves be remembered by what we have done.”

These words are equally expressed by the immortal Hufeland, and are more directly appropriate to our profession: “Thine is a high and holy office. See that thou exercise it purely, not for thine own advancement, not for thine own honor, but for the glory of God, and the good of thy neighbors. Hereafter thou wilt have to give an account of it.” The country doctor, having time for reflection, recognizes these truths amid surrounding disadvantages and trials, lights and shadows, and, like virtue, a country practice is its only reward.

SOME CLINICAL INDICATIONS FOR THE USE OF THE ELECTRIC-LIGHT BATH.*

BY T. D. CROTHERS, M.D.,

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THE use of the electric-light bath as a sudorific and tonic, or remedy for the restoration of deranged metabolism, is practically new in therapeutics. A number of experimental studies have been made in this direction with most encouraging results. The sudorific action of electric light is prominent, and evidently superior to the hot-air bath in rapidity of action and duration of effect.

How far the electric-light bath promotes healthy metabolism, destroys bacteria, and adds new force or vigor to the functional activities of the body, is yet to be determined. Hot-air baths, in nearly all forms of neuro-psychoses, have proved so valuable that further researches, with improved means and methods, give promise of most practical results.

The patients who come under my care suffer from toxic insanities due to spirits and drug-taking. They also suffer from sclerotic conditions of the heart, liver, kidney, and blood-vessels, particularly of the finer arteries. Associated with these pathological changes are various degrees of vaso-motor paralysis, organic cell changes with disturbances and palsies of co-ordination. Anemia, hyperanemia of the nervous system, and the unknown conditions described by the terms neurasthenia and cerebrasthenia, are always more or less prominent. As a remedy for these conditions, I have used the electric-light bath for over a year, giving from thirty to fifty baths a week, exclusively to spirits and drug-takers in all conditions and degrees of addiction.

The bath consists of a room five feet square and six feet high, lined with tin, on which are arranged ninety incandescent lights of sixteen-candle power. The patient, taking a bath, sits on a chair in the centre of this room with the entire body exposed to the light, the head being covered with a napkin.

It was found from experience that the action of the electric light dried out the oil in the hair, leaving it dry and husky, hence it was thought that the intense action of light would impair the growth of the hair and otherwise injure the scalp. These effects

* Read before the Electro-Therapeutic Society.

were not noticed on the hair of other parts of the body. At the beginning of the bath the temperature of the room would be about 70 F., and in the course of ten or fifteen minutes it would rise to 125 or 130, and during the one or two hours in which the baths were given, it would fluctuate between 120 and 150. The opening of the door for the exit and entrance of a new patient would vary the temperature from ten to fifteen degrees. Perspiration began after entrance to this room in from five to eight minutes, and became very profuse in from ten to fifteen minutes, the patient rarely remaining over fifteen minutes.

In most cases the duration of treatment was but ten minutes, sometimes less. Many persons perspired excessively in five or six minutes. This depends in some measure on the state of the skin. As all patients of this class have general anesthesia of the cutaneous nerves, and diminished circulation of the superficial vessels, diaphoresis is always lessened and impaired. In some instances profuse perspiration would appear in a few minutes, in others it would be slow. For the purpose of aiding this action, quantities of water were drank before entering the bath. The first inquiry was the effect on the temperature of the body. Where the temperature was above the average, due to some toxins or some sub-acute inflammatory condition, there was a sharp fall of from one to two degrees, and in some instances this occurred during ten or fifteen minutes. This reduced temperature usually continued for hours or days after, and in some instances did not rise again. In other cases where the temperature was subnormal, due to unknown conditions, there was a slight rise of a degree or more.

In both these classes, it was supposed that the fluctuation in the temperature was due to the removal of the toxemias. In other examples, the temperature did not vary much, and quickly dropped back to the condition which existed at the beginning of the bath. In the so-called tobacco-heart, a condition noted by much functional disturbance, of which tachycardia and arrhythmia are the most common phases, the effects were noticeable in diminishing the irregularity, giving tone and strength to the pulse. In most cases, the heart's action increased from ten to fifteen beats, and the regularity and force of the beat was improved, and this increased action continued for hours afterwards. Where organic disease of the walls or valves existed, a marked improvement followed, particularly in the regularity and steadiness of the beat.

The respiration remained about the same, in some instances rising, in others falling. In all, it improved in steadiness. Massage with hot or cold showers were given, and the patient always retired to bed, the baths always being given early in the evening.

This would supplement and increase the good effects of the light, or neutralize any possible bad effects from it.

It is evident that two distinct effects were produced from the action of electric light in this form. First, the physiological effect. The rapid, sudoriferous action of electric light on the skin produced intense and rapid elimination, draining off the water from the blood and tissues, and with it the toxins, salts, and excrementitious matters. This in itself is a most valuable means for relieving the disordered conditions commonly present. It was found that after this sudorific effect, followed by massage and showers, a decided soporific tendency was induced. Degrees of nervous insomnia were overcome, and persons who could not sleep well before the bath, after it had profound slumber. Drug-takers, who were constantly looking for the analgesic effects of drugs, found in the bath the relief they sought. In some instances this was very marked, and lasted for one or two nights. In others it was of short duration. In all instances this was a marked result. The particular disorders which seemed most influenced by the bath were neuritis, gastritis, myalgia, and extreme nervous irritation.

Arterio-sclerosis (a very common organic disease in spirit and drug-takers) is materially changed by the light bath, as seen in the improvement of the heart's action and lowering of the arterial tension. After each bath the circulation became steadier, and the tracings by the sphygmograph more uniform. The general sclerotic condition was changed. In one instance the patient lost flesh, and gained in muscular vigor. He became intensely alarmed at his condition, and used the light bath every day for three months with marked relief.

Sclerosis of the liver and kidneys has greatly diminished in several cases, and the acute symptoms subsided through the use of the bath. In hypertrophic liver the size of the organ is perceptibly decreased after the first bath. Albumen and casts from the kidneys grow less, and finally disappear after a few baths.

All these and other conditions show marked improvements from the time of the first bath. This was so prominent in some instances, that all drug medication was withheld, and the baths were the exclusive remedy used for the time. It was evident that the electric light was the most prominent agent in producing these results, supplemented by the massage and shower. This was proved in instances where the electric bath was not used, but only massage and showers, in the different results which followed.

It was also evident in persons who took hot-air baths daily with massage and showers. A comparison of results, including the rapidity of restoration, showed that those who took the electric-light bath made a more rapid recovery, slept better, and the nutrition improved with greater rapidity.

Second, the psychological effect of the bath was especially marked. The first impression of an electric-light bath is always pleasant, because associated with a feeling of credulity as to the effects. The impressiveness of the room, and the absence of any unpleasant physical conditions, such as glare of light on the eyes, or the discomfort of breathing, with the feeling of awe and wonderment aided by the suggestions of the operator, have a very powerful influence on the mind and body. After the first bath, this confidence is deepened, and the mental suggestion of restoration from this means becomes a dominant idea, which, in addition to the physical agents used, is a most powerful tonic and restorative.

A certain hypnotic impression grows with each bath, and is largely supplemented by the actual physiological action of light on the organism. As a result, mental disturbances of all degrees, including illusions, delusions, and hallucinations, grow less and less, and finally disappear. It is evident that its use in manias and melancholias might be very beneficial, also that in marked organic diseases it will be of great value in staying the progress of the disease.

In many cases an intense mental disgust for spirits follows the bath. This grows with the vigor of the person. The exhaustion, not unfrequently noted after a hot-air bath, never follows the electric bath. This is, no doubt, due to both mental and physical influences.

These are only a few of the many indications which are traceable to the use of light. I am encouraged to believe that with new methods of application and a wider and more accurate study, its value as a therapeutic agent will come into great prominence.

GYNECOLOGICAL SURGICAL CLINIC AT THE METROPOLITAN HOSPITAL, NEW YORK.*

BY AUGUSTIN H. GOELET, M.D.,

Professor of Gynecology, New York School of Clinical Medicine.

CONSERVATIVE OÖPHORECTOMY, MYOMECTOMY AND VENTRAL SUSPENSION.

Gentlemen,—The first operation to-day is upon a patient you saw at my clinic last week. You remember she has a retro-flexed uterus that is bound down by adhesions, and that there is a small mass to the left in the region of the ovary which is a small ovarian cyst. There is also a small fibroid nodule in the posterior wall of the uterus, near the fundus. The patient is forty-two years old, and has been married two years. Her life was one of comparative comfort before marriage though she suffered with occasional backache. Since her marriage, however, this has been exaggerated, and she now complains of pelvic pain, referred more particularly to the left side. I am satisfied that the displacement of the uterus is of long standing though the cyst may be of recent development.

We will begin by curetting the uterus because there is in these cases almost invariably an associated endometritis. I shall use here only the semi-sharp, copper-edged (so-called dull) curette within the cavity of the uterus, because it will remove all that should be removed without doing any damage, and the sharp curette will be used only upon the firmer structure at the internal os which could not be removed with the other instrument. Afterwards, the cavity is irrigated through a double current irrigator. For irrigation, plain sterile water, normal saline solution or a solution of Synol Soap two drams to the quart (I prefer the latter), is employed for the purpose of cleansing the cavity. When an astringent is required, I use a solution of half an ounce of the compound tincture of iodine to the quart of water, and when necessary to arrest hemorrhage the strength is doubled.

We will now proceed to open the abdomen in the median line, just above the pubes. For the work we have to do here this incision need not exceed three inches in length. The median line is followed down to the linea alba, and the abdominal wall beneath is penetrated a little to one side so as to go through the rectus

* Reported expressly for the CANADIAN JOURNAL OF MEDICINE AND SURGERY.

muscle, because this gives muscle to muscle approximation in closing the incision, and makes a much stronger line of union.

I have brought up the left ovary after freeing the adhesions binding the uterus, and you see the small cyst involves only a part of the ovarian structure. I puncture this, empty it, and resect the cyst wall completely. You observe there is considerable healthy ovarian structure remaining. The cut edges of the ovarian structure are now brought together by a continuous suture of fine catgut. This portion of ovarian tissue is well worth saving because we do not know yet the condition of the other ovary, and should it prove to be healthy now, it may become diseased later and require removal, when if she had lost the other she would be deprived of both. Conservative work upon the ovary should always be done when it is possible, without adding to the risk of the operation. The tube on this side is normal. The other ovary and tube as well are also normal.

The uterus is now seized with tenaculum forceps at its fundus, and drawn up into the wound. The small fibroid nodule which we felt before, is not large, as you see, and is apparently giving no trouble, but it increases the weight of the uterus, and should not be left to develop and cause trouble subsequently. These fibroids of whatever size should always be removed when they are encountered in this way, when the abdomen is open, though it adds to the risk of the operation, and every one that can be felt in the uterine wall should be removed, even if they encroach upon the cavity of the uterus, and it is opened into in the process of enucleation. In fact, I believe it would be better to open the abdomen expressly to remove these growths when they are small, though they may not be causing trouble, than to wait until they are larger.

The uterine wall over the tumor is incised in the direction of the long axis of the organ down to the growth, which is then, you see, easily shelled out with the handle of the scalpel. The incision in the uterine wall is then closed with a continuous suture of fine catgut. When there is much oozing from the bed left by the tumor, it is sponged out with hot normal salt solution, before inserting the sutures which close the incision.

The uterus is now suspended to the anterior abdominal wall at the lower angle of the wound. The sutures, two in number, of medium-size silk, are passed through the peritoneum and subperitoneal fascia only of the abdominal wall on each side, and through the uterine wall at the posterior aspect of the fundus, and they are inserted not more than a quarter of an inch apart so as to limit the area of attachment of the uterus to the abdominal wall. When tied, these sutures are within the peritoneal cavity, the

peritoneal margins being united over them in closing the abdominal incision.

The abdominal incision is closed by three layers of continuous suture of No. 1 catgut, one uniting the peritoneum and lower border of the muscle, a second the fascia and upper border of the muscle, and the other layer is a subcuticular suture which approximates the margins of the skin. This makes a strong line of union, and the resulting scar is only a line, with scarcely any perceptible spreading of the skin cicatrix subsequently.

CURETTAGE AND TRACHELORRHAPHY.

The next case requires only a curettage and repair of a lacerated cervix. The curettage is done in the same manner as the first case. This completed, the cervix is caught with a tenacular forceps and a traction ligature is inserted through the centre of both anterior and posterior lips of the cervix. This will prove a great convenience, and avoid the constant tearing and laceration of the cervix by a tenaculum. These traction ligatures are handled by an assistant who drags the lips apart, and exposes the angles of the laceration on each side. A tenaculum is fastened at the lower margin of the posterior lip on one side, and my cervix knife is inserted into the cicatricial plug at the angle, transfixes it, and comes out within the canal of the cervix. Pulling the knife downward, and directing its course towards the point into which the tenaculum is inserted, it cuts off a slice from the margin of the lacerated lip, and leaves a smooth, perfectly even denuded surface. The knife is reinserted at the angle, and made to cut a slice from the margin of the anterior lip. If there is still some attachment of this wedge to be removed at the angle, a few upward strokes of the knife which has a double edge will detach it.

The same thing is repeated on the other side of the cervix, and we have a perfect denudation accomplished in less than half the time required when scissors are used for this purpose, and all the cicatricial tissue has been removed.

We are now ready for the insertion of the sutures. I prefer silkworm gut for a suture material, and this has been dyed with methylene blue, so that they are more readily distinguished when we wish to remove them.

Before tying the sutures, the denuded surface is irrigated freely with hot normal salt solution, and the two lips are drawn together by the two traction ligatures which are then caught with a hemostatic forceps near their insertion, and held together so as to approximate the lips evenly. The sutures are now tied, and

care is taken not to draw the loop tight enough to constrict and cut off the circulation. The traction ligatures are now removed, and you see there has been perfect coaptation of the lips of the cervix. A uterine packing forceps is now inserted through the canal of the cervix, and the blades slightly separated to enlarge the canal and insure its patency. This serves also to relieve some of the constriction of the cervical tissue by sutures..

These cases require no attention during convalescence. It is better to omit vaginal douching as the careless insertion of the nozzle would disturb the sutures and the healing process. The sutures may be removed at any time after two weeks, but they should remain longer if union is not complete and perfect. The great objection to catgut as a suture material in these cases is that it does not last long enough, and by cutting into the tissue the loop loosens before union is complete, and permits the approximated surfaces to separate.

School Hygiene.

EYESIGHT.

PROF. McHARDY, ophthalmic surgeon at King's College Hospital, and Professor of Ophthalmology at King's College, says: "I believe that the present kindergarten system is at the root of much of the injury caused to young children's eyes. I have studied this phase of the question, and am able to speak from experience. The continuous concentration of young eyes on colored papers and the small objects used in the infants' school-room does, I am convinced, tend to provoke short sight in a few years."

"This mischievous element can be detected not only in London, but in all large towns where young children are forced, quite unconsciously, to strain their eyes in one direction in a poor light. A little reading and a little sewing for children do no harm, but when the dose is in the slightest degree over-done, as I am convinced it is in many of our schools, then injury to vision takes place."

"Then," continues Prof. McHardy, "I ascribe much of the imperfect vision to-day to the slovenly posture in which people read and write, especially when they have not done growing. How often do you see passengers in railway trains crouching or curled up over a newspaper in a bad light? Not only are they injuring their vision, but their spines as well. I do not say that newspaper reading in itself is the cause for increasing bad sight. It is due, rather, to the distance the paper is held from the eyes, the poor-ness of the light, and the stuffiness of the atmosphere."

"A paper or book should in ordinary cases be held about 18 inches from the eyes, and if artificial light is employed, that should fall, not on the eyes, but on the paper, and of course over the left shoulder. I myself never read in a train, unless it is for the first few minutes of the journey to prevent the people talking to me; after that I'm generally asleep."

Right of Entry into Day Schools.—In the case of Wimbledon Urban District Council *v.* Hastings (King's Bench Division, 24th June, 1902), a point of the greatest interest to sanitary authorities has been decided. It appears that a complaint was made to the Council that one of the rooms in the school concerned—

a high school for girls—was overcrowded, *i.e.*, that too many scholars were allowed to occupy this room at the same time. The Inspector of Nuisances of the Council visited the school and applied to be admitted in order to make an examination of the premises and to ascertain whether the nuisance complained of really did exist. Admission was refused, and this refusal was adhered to, notwithstanding a letter from the Clerk to the Council. Application was thereupon made to a Justice of the Peace for an order to admit, and the application was granted. The head-mistress of the school then appealed to Quarter Sessions, contending that the order was bad on several grounds, chiefly so because section 91 (5) of the Public Health Act, 1875, did not apply to day schools but only to dwelling-houses. At this hearing the Court of Quarter Sessions refused to accept certain evidence which was tendered, and which was to prove that the nuisance did not exist. The appeal was, however, allowed by Quarter Sessions and the order of the Justices quashed, on the ground that scholars were not "inmates" within the meaning of the above-named section of the Act. At the present hearing the Wimbledon Council who were the appellants gained the case. In giving judgment, the Lord Chief Justice stated that neither the Justices nor Quarter Sessions had to decide whether a nuisance existed or not, but they might have to consider whether there were reasonable grounds for suspecting the existence of a nuisance.—*The Practitioner*.

H. MACM.

Stuffing Children's Minds with Undigested Knowledge.—

Mark Twain has issued a pamphlet, entitled "English as She is Taught," which makes a needed protest against the attempt to cram the memories of school children with information far beyond their power of assimilation. The result often is that the poor little minds have a sort of indigestion which is to the true pedagog more pathetic than it is amusing. Twain gives some of the answers in *physiology* by pupils in the public schools:

Physillogigy is to study about your bones stummick and vertebry.

Occupations which are injurious to health are carbolic acid gas which is impure blood.

The stomach is a small pear-shaped bone situated in the body.

The gastric juice keeps the bones from creaking.

The chyle flows up the middle of the backbone and reaches the heart where it meets the oxygen and is purified.

In the stomach starch is changed to cane sugar, and cane sugar to sugar cane.

The olfactory nerve enters the cavity of the orbit and is developed into the special sense of hearing.

The growth of a tooth begins in the back of the mouth and extends to the stomach.

If we were on a railroad track and a train was coming, the train would deafen our ears so that we couldn't see to get off the track.

John Bright is noted for an incurable disease.—*American Medicine*.

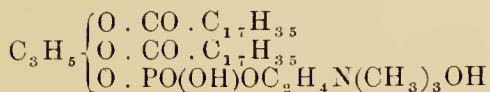
H. MACM.

Selected Articles.

LECITHIN—OVOLECITHIN.

LECITHIN is an important constituent of animal and vegetable tissues occurring more especially in the nerves, the brain, semen, the yolk of eggs, also in blood and in the chlorophyl of plants. Generally it is associated with the cell nucleus, and especially in young cells lecithin exists in the form of an albuminoid compound.

Lecithin can be prepared from the germs of the oat or from yolk of egg, but at present is prepared for medicinal purposes exclusively from the latter material, under the name of Ovolecithin. Chemically lecithin is to be regarded as a distearic-glycerophosphoric cholin ether, its composition being represented by the formula:



Ovolecithin is a yellowish waxy mass soluble in hot alcohol, also in chloroform, benzene or fat oils. In water or physiological salt solution it swells up forming a jelly.

More than seven years ago J. Stocklasa pointed out that lecithin plays an important part in the vital processes of the plant organism. Subsequently B. Danilewsky, to whom we are indebted for the medicinal application of lecithin, observed that the administration of lecithin was attended with an extraordinarily rapid growth of tadpoles.

The same observer also showed that administration of lecithin internally and subcutaneously to young warm-blooded animals (dogs) considerably promoted growth of the body, improvement of the blood and increase of the brain mass so that the animals fed with lecithin excelled the control animals both physically and in psychic relations. Charrin, Serono as well as Desgrez and Aly Zaky fully confirmed the observations of Danilewsky. The digestive apparatus appears to be stimulated in activity by the administration of lecithin; the appetite was sometimes rendered ravenous, there was also a large numerical increase of red blood corpuscles (Danilewsky and Selenski). Stassano and Billon

adopting that result also showed that the resistance capacity of hematin is considerably increased by lecithin. In a similar manner the number of leucocytes undergoes a sensible increase. According to Desgrez and Aly Zaky the excretion of phosphorus from the organism is retarded by the choline contained in lecithin; that circumstance exercises a distinctly favorable influence upon the assimilation of nitrogen, that finds expression in the increase of body weight.

These favorable results of physiological investigation must naturally encourage therapeutical use of lecithin, and, in the case of a series of diseases mostly arising from disturbances of nutrition, it has led to brilliant results.

A wide field for the use of lecithin is to be found in diseases of the brain and nervous system since according to Danilewsky the assumption is justified that such diseases are often due to deficiency in the components of new plastic restitution within the substance of the nerves, and that by administration of lecithin the disordered tone of the nerve material can be restored, as lecithin is the chief neurogenic component of brain substance. In accordance with that view are the good results obtained by Gilbert and Fournier, de Diego, Micheli and Riez in cases of neurasthenia and other nervous complaints, as for instance nervous dyspepsia. Danilewsky tried lecithin on himself and found that he experienced an augmentation of nutritive effect, of individuality with capability of resistance and of mental power. Hartenberg found that by subcutaneous injection of lecithin in cases of tabes, general paralysis, various psychoses, hysteria, etc., there was essential improvement effected. Especially good results appear, according to the observations of Aries, to have been produced by lecithin in the various troubles affecting aged persons, when it hastened convalescence from acute disease, ameliorated sundry disturbances of nutrition, and in some degree gave the organism renewed vitality.

G. Carriere treated cases of rachitis with lecithin cod liver oil, and within the course of four to six months the disease was arrested as well as a perfect cure effected. That effect appears to be therapeutically the more valuable, because means are thus provided by which all the advantages of treatment with phosphorus may be secured without risk of the dangers attending the use of that substance as a medicine.

Excellent effects of the use of lecithin were observed by A. Narbet in cases of arthrepsia in children whose condition might have been considered hopeless. The evacuations soon became under that treatment normal, the general condition improved and the appetite increased while there was considerable increase of body weight. In these cases lecithin was administered by intramuscular injection in doses of 1 c.c. every other day.

A very remarkable effect of lecithin is attributed to its use by H. Claude and A. Zaky, Lemaski, Morichau-Beuchant, Samuel Bernheim and O. Tabary in tuberculosis and it appears to be especially effectual in the first and second stages of that disease. By its use rapid and certain increase of body weight is secured (0.4 to 1 kilo weekly), strength is restored, the temperature of the body is reduced, cough and expectoration are relieved, quiet sleep obtained and night sweats cease. In several instances the bacilli disappeared after 24 to 30 intramuscular injections. In all cases the hypoacidity of the urine changed to normal hyperacidity. Claude succeeded in obtaining direct proof of the beneficial effect of lecithin upon tuberculous animals. Those treated with lecithin always survived the control animals, the disease assumed a more benignant form, inasmuch as it remained stationary and took a subacutely running broncho-pneumonic type leading to sclerosis. Bernheim and Rollet employed recently in tuberculosis injections in which lecithin is combined with guaiacol, and they consider that in that way better results have been obtained than by using either lecithin or guaiacol separately.

Lancereaux and Paulesco administered lecithin in diabetes connected with affection of the pancreas, as well as in other forms of disturbances of the digestive processes; its use, both internally and subcutaneously, was attended with the best effects recognizable in rapid increase of body weight, amelioration of specific symptoms and of the general condition.

The remarkable rapid increase of red blood corpuscles that is observable according to the previously mentioned studies of Danilewsky-Selenski and Stassano-Billon as a result of the administration of lecithin indicates that it is a valuable means of effecting blood formation, a view that finds support in the clinical observations of Serono in cases of chlorosis and anemia. That authority ascertained that the increase of red corpuscles was as much as from 800,000 to 1,500,000 per c.c.

A further opportunity for the use of lecithin is to be found in convalescence from severe cases of infectious diseases when the powerfully tonic action of that remedy is exercised in the most beneficial manner (de Diego, Riez).

In veterinary practice Fambach has used lecithin in cases of inflammation of the brain and cerebrospinal fever in horses; he speaks of it as the only remedy that has been found efficacious in the treatment of those diseases hitherto considered to be incurable. Fambach recommends the administration of lecithin in doses of 0.5 gramme subcutaneously. An essential condition of success is that the injection of lecithin should be given in the first stage of the disease, in slight cases giving one and in more severe cases two injections of 1.0 gramme of lecithin daily. For that purpose

the lecithin is to be dissolved in the least possible quantity of absolute alcohol (8 or 10 drops). To the alcoholic liquid—which is generally insufficient to dissolve the whole of the lecithin—is to be added, just before the injection, 15 to 20 c.c. of physiological salt solution. The lecithin is then precipitated in the form of flocks which remain suspended in the injection when it is applied. Simple suspension of lecithin in physiological salt solution may also be adopted. If edema should supervene after injection it is not dangerous, but care must be taken to avoid pressure.

Lecithin acts equally well when administered internally or subcutaneously. The average daily dose is from 0.25 to 0.5 gramme given internally; in psychosis it may be increased to 1 gramme daily; when injected, as is specially to be recommended in diseases of the stomach or intestines and in tuberculosis, when a rapid action is desirable, the dose should be from 0.1 to 0.25 gramme every other day. For children those doses are to be reduced to half. Since lecithin is a perfectly innocuous substance the doses above mentioned may in some instances be exceeded.

THE FORBES WATER STERILIZER.

PHYSICIANS are well aware of the fact that, though water is clear and attractive to the eye, it cannot be taken for granted that that water is not poisonous and most unhealthy. Heat is universally acknowledged by the scientific world to be the only sure agent for destroying disease germs in drinking water. Water which has been boiled is free from disease germs and is wholesome to drink, but water as ordinarily boiled is flat, insipid and unpalatable to the taste by reason of having much of its oxygen and other gases driven off by long-continued boiling. Moreover, it is more trouble to go through the performance of boiling, cooling and preparing the water to drink than most people are willing to undertake. Especially is this true where much water is required. Distillation, as accomplished by the many small water stills upon the market, even though rendering pure, wholesome water, is very slow and tedious, for the water leaves the still quite hot, and before fit for drinking it must be cooled, either by standing for a long time or by means of ice, which is liable to recontaminate it, for cold does not destroy disease germs.

The Forbes Water Sterilizer thoroughly sterilizes water, as based on many bacteriological and other tests, such as heavily impregnating water with the germs of typhoid, diphtheria, etc., then passing the impregnated water through the Forbes Sterilizer and then examining the water for disease germs. It is claimed that

in no case, as yet, has a single disease germ been discovered after the water has been put through Forbes' process of sterilizing.

Principle of Operation.—Figure 1 is a purely diagrammatic view of No. 1 or aerostatic feed apparatus, and serves to explain the method of operation.

The raw or unsterilized water is supplied from the inverted bottle 1. The water runs from the bottle 1 into the cup 2, then

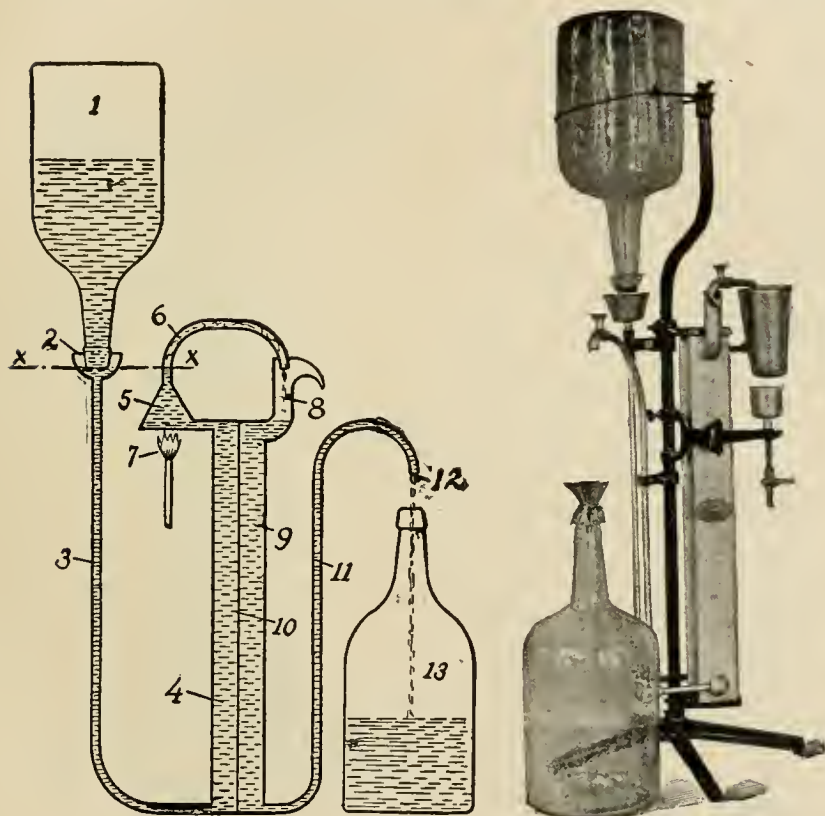


FIGURE 1.—Portable. For use with bottles where water supply is not at hand in pipes.

down through the pipe 3 into the compartment 4 of the heat exchange, which it fills. When compartment 4 is filled the water runs into the heater 5 and rises in the pipe 6 to the level X, where it stops. No more water will now run out of the bottle 1, because its mouth is sealed by the water in cup 2 at the level X. The burner 7 is now lighted and heat is applied under the heater 5, which causes the water in the heater to boil, and in boiling it rises in the pipe 6 and flows over into cup 8, just as a pot on a cooking

range will boil over. It is, therefore, impossible for any water to pass through the apparatus until it has boiled, for it is only by boiling that it can rise sufficiently in the pipe 6 to flow over into the cup 8. This boiling lasts for but the fraction of a second, and once the water has passed through the pipe 6 it is removed from where heat can again reach it. When some water has boiled over, as above stated, the level of the water in the heater 5 and

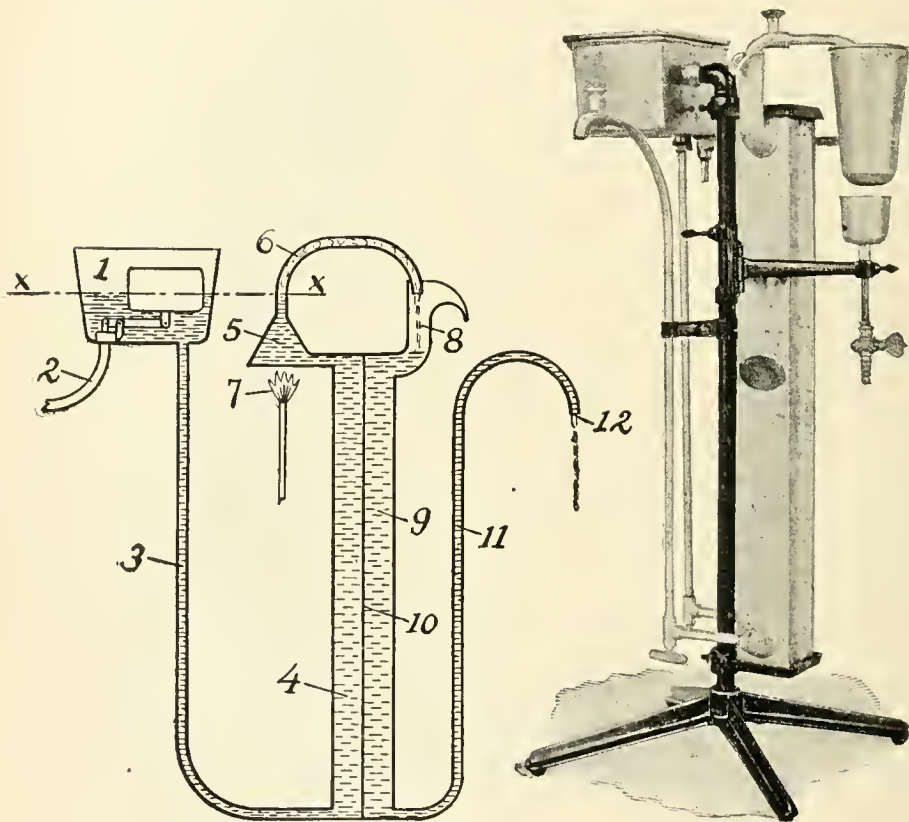


FIGURE 2.—For use on floor, counter or shelf. Can be connected to water supply pipe by iron pipe or rubber tubing.

likewise the level of that in cup 2 is lowered. This exposes the mouth of the bottle 1, so that a small quantity of air enters the bottle and allows a corresponding quantity of water to run out of the bottle and refill the cup 2 and heater 5 up to the level X again, when the mouth of the bottle is again sealed by the water, and no more water can run out of it until the level is again lowered by reason of more water boiling over through the pipe 6.

This action becomes continuous, for the flame 7 is constantly boiling the water in the heater 5 and causing it to flow over through the pipe 6. The water continues to boil over into the cup 8 and quickly fills compartment 9 of the heat exchange. When compartment 9 is filled the water runs out of the pipe 11 at the opening 12 into the receiving bottle 13. While passing down through the compartment 9 the heat of the water, which is boiling hot, is transferred, by conduction, through the thin metal partition or diaphragm 10 to the cold water passing up through compartment 4, so that the water which is boiled in the heater 5 passes out of the apparatus nearly as cold as that entering, while the cold water entering the apparatus becomes heated as it passes up through compartment 4, and reaches the heater 5 in a very hot condition and nearly at the boiling point.

Therefore, the only heat which has to be supplied to keep the apparatus running continuously, is that necessary to bring the already highly heated water entering the heater 5 to the boiling point, and cause it to rise above the normal water level X and boil over through the pipe 6, and so pass on through the remainder of the apparatus to the discharge outlet 12.

Fig. 2 is a diagrammatic view of the No. 2 apparatus. The principle of operation of this apparatus is identical with that of the No. 1 apparatus, but the construction is slightly different. In the No. 2 apparatus 1 shows a water tank with a pipe 2, through which water enters and is allowed to fill the tank up to the water level X, but no higher, as it is restrained by the float-actuated valve shown in the tank.

The small tank with the float and valve merely takes the place of the inverted bottle and aerostatic feed used in the No. 1 apparatus. Both the aerostatic device and the float and valve have the same functions, viz.: maintaining the water level at the line X. In the No. 2 apparatus the pipe 2 is connected with a constant water supply, such as a faucet or the water supply pipe of the house.

After the water leaves the float box it runs down through the pipe 3, and the action of the apparatus from this point on is exactly like that of the No. 1 apparatus before described.

The Forbes Sterilizer is used by almost every company in the United States Army, and the annual reports of the United States Surgeon-General to the Secretary of War for the past two years have been very flattering as to the efficiency of this apparatus.

The British Army made a test of the Forbes Sterilizer in the recent South African campaign, and the reports could not have been better. The manufacturers made a sterilizer for households and physicians' offices, and larger ones for hospitals, hotels and other institutions. The sterilizers can be operated by either gas, Bunsen burners, or by kerosene, and the cost of operation is a mere trifle.

MUSICAL THERAPEUTICS.

GLAD news comes from New York. Henceforth nobody, so long as there is a piano-organ in sight, need be ill. The members of the Society for the Culture of Musical Therapeutics have fixed all that. They have evolved a plan by means of which diseases of various sorts, or perhaps, of all sorts, are going to surrender to the divine harmonies administered by catgut or reed. The enchantment of this method of cure is well known to everybody in the society. The members are now engaged in apprising the public that in music they have a force which may, under adverse circumstances, be as dangerous as dynamite. The lady who is the high priestess of the cult, Miss Eva Augusta Vescelius, is responsible for the warning, and it is about up to everybody that Eva Augusta be attended to when she talks.

Think of the awful consequences if a sudden shower of Wagner should descend upon the helpless inmates of our city hospitals, if some wild craze, some tidal wave of musical therapeutics should strike the administrators thereof! The theory is that music is a cure-all, and that the more of a good thing the better. And so, the massed bands of the city might storm the General Hospital, for instance, in the expectation of a miracle. Medical and surgical wards would be expected to give back their human contents to the city healed and made sound, the armless and legless would come forth whole. Everybody would be cured quickly and inexpensively, and all would be lovely. But Miss Vescelius will not allow all to be lovely. She informs the members of the society that all music is not good for all cases, any more than the practitioner would give one specific for all diseases. "Rocked in the Cradle of the Deep" may be all right for insomnia, but utterly unsuitable for cholera infantum, for instance. Miss Vescelius has found that "All Coons Look Alike to Me" is a tune excellently well adapted for hospital use, while "Comrades" has been known to cure hopeless cases of locomotor ataxia. It is not, however, a specific for distemper. There is a new song called "She Touched Her Father for a Dollar," that ought to commend itself to Miss Vescelius. Attempted in the alcoholic ward, it should result in a rapid cleaning out of this section of the institution. The wards would be reminiscent of so much that the inmates would remember. Rhythm, harmony, cheerfulness are characteristics which should be sought in musical therapeutics. Above all, there must not be too much of a good thing. The German band, for instance, must be kept far from the sensitive ears of those who suffer, and are helpless to retaliate. The healing properties of music are all right in their way, but they are not necessarily on tap, so to speak, at all hours of the day and night. People want some rest, even from the business of getting cured.—*Exchange.*

The Canadian Journal of Medicine and Surgery

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Editorials.

PYORRHŒA ALVEOLARIS.

PYORRHŒA alveolaris, called also Rigg's disease, expulsive odontitis, is a purulent inflammation of the dental periosteum, with progressive necrosis of the alveoli and looseness of the teeth. Among its most noted concomitants are: rheumatism, trophoneurosis, and excess of the lime salts, all of which fit in with the idea, commonly entertained, that this disease is found almost exclusively in patients of the arthritic diathesis. It has also been observed in diabetic patients.

The excess of lime is revealed by two circumstances: the resistance offered to caries by the teeth, and the excessive amount of tartar deposited about them. The disease generally appears in one or two teeth. Afterwards other teeth are progressively invaded, so that the patient may present different degrees of the same disorder—from a tooth which is almost sound to another tooth for which no treatment will avail. The first part of the treatment consists in the complete, minute, careful removal of tartar, as any particles which remain will prevent repair and become centres for future deposits. Younger says that an operator should devote an hour or more to each tooth. Although this statement may appear exaggerated, it shows the precision required in order to secure the removal of tartar in an effective manner.

When the tartar is scraped off, there remains between the tooth and the loosened gum a space formerly occupied by tartar, but which is empty—a purulent burrow—for suppuration is an almost constant phenomenon and appears early in this disorder.

A good review of the subsequent treatment is given by Dr. Mahe, in an article which appeared in *La Presse Medicale*, August 12th, 1903. Ablation of the purulent burrow by bistoury or scissors is recommended as the simplest and most efficacious procedure. Ablation by the thermo-cautery or the galvanocautery has been used; but neither method is so radical as the cutting operation, and besides every practitioner is not provided with these cauteries. Caustics have been tried—the whole series of acids from chromic acid recommended by Magitot, to lactic acid, extolled by Younger, not forgetting sulphuric acid of different strengths.

Dr. Robin uses concentrated sulphuric acid, concurrently with the acid nitrate of mercury, but the results of his treatment are less perfect than, and not so rapid as, those obtained by ablation with the bistoury. Dr. Mahe, when patients refuse ablation with the bistoury, tries the following method: One, two, or three teeth are treated at the same time. The teeth are isolated from the mucous membrane by plugs of wadding. The neck of the tooth having been carefully wiped, a drop of strong sulphuric acid is introduced into the burrow by means of a small platinum spatula. The acid is allowed to act for some moments, after which the

mouth is freely irrigated. A drop of the acid nitrate of mercury is then introduced into the burrow. This operation causes, for several hours, a sensation of burning. Three or four days after the operation, a greyish purfling appears around the necks of the teeth which have been operated on, and a small slough which is easily detached. The treatment is renewed as often as may be necessary, in order to obtain the destruction of the pus cavity. The patient is advised to brush his teeth with white soap dissolved in water every night, and every second or third night to apply to the affected gums a portion of the following preparation:

R	Tinct. Krameria	}	āā	5 grams
"	Thrya Occidentalis			
"	Spts. Cochlearea	}	āā	1 "
"	Iodine			

A lotion of chloride of zinc (0.5 per cent.) is also used with advantage, although quite insufficient as the sole remedy. It should be used in the morning, lukewarm. The pus cavities having been cleaned out by pressure of the fingers, this lotion should be applied for five minutes at least, after which the teeth should be brushed with the following astringent powder:

R	Carbonate of Strontium (pure)	.....	30	grams	
	Powdered Catechu	}	āā	5	“
	“ Rhatany				
	“ Cloves	}	āā	1	“
	“ Ginger				
	Eugenol	.....	6	gtt.	

This treatment will be effective the sooner it is put into operation, and the more it is applied to teeth which are not much affected.

When the diseased condition is well marked, one can only expect the immobilization of the disease, or at least a slowing of the movement in the diseased process. When the teeth are quite loose, the case is different. If the treatment indicated above does not produce a notable improvement of the affected teeth in a week, they should be extracted.

Extraction suppresses a focus of infection from which sound teeth may be affected, and it deprives the patient of a pretext, too often taken advantage of, for throwing doubt on the efficaciousness of the treatment employed, and abandoning it prematurely.

J. J. C.

SUICIDE EXPERIENCE IN A FRATERNAL INSURANCE ASSOCIATION.

SPECULATION as to the reasons which impel ordinary men to kill themselves, being of unfailing interest to physicians, as well as the general public, we have thought it profitable to throw a sidelight on this obscure subject, by considering the motives for the act, alleged by the friends of the suicides of a special class, viz., the insured.

For our facts and figures we are indebted to the report for 1902 of the Medical Examiner in Chief of the Royal Arcanum, a fraternal insurance association of Boston, Mass. (*vide Royal Arcanum Bulletin*, August, 1903).

It appears that in 1898 the Royal Arcanum adopted a suicide law, which voided a policy of life insurance granted by the Association in case a brother suicided during the first five years of his membership. The Medical Examiner compares the number of suicides in the Association since 1898, with the number of deaths from the same cause and during the same period prior to the enactment of this law, in order to note its influence on the deaths within five years of admission, which it was expected to diminish. As the law was operative only during the last five months of 1898, the experience obtained during that year is not included in the table. The deaths, both before and after the law came in force, can also be more clearly seen by omitting the year 1898 :

	Year.		Number of Suicides, Duration of Membership not more than Five Years.		Number of Suicides, Duration of Membership more than Five Years.		Total.
Experience under Suicide Law	{ 1902	....	16	....	68	....	84
	{ 1901	....	10	....	71	....	81
	{ 1900	....	13	....	63	....	76
	{ 1899	....	10	....	57	....	67
Experience prior to Suicide Law	{ 1897	....	23	....	59	....	82
	{ 1896	....	25	....	53	....	78
	{ 1895	....	33	....	36	....	69
	{ 1894	....	25	....	37	....	62
	{ 1893	....	25	....	35	....	60

It will be noted that the number of five-year deaths for the first three years following 1898, was only about one-third as numerous as prior to that date. The number (16) in 1902 is

larger than during the three years immediately preceding, but only two-thirds as large as in the years prior to 1898.

Another table shows the ratio of deaths within five years per one thousand members of the order, and a similar ratio of deaths among members of more than five years' membership. A comparison of these ratios since 1898 with those prior to 1898 is interesting.

	Year.	Average Memberships.	Number of Suicides of not more than Five Years' Standing.	Ratio per 1000 Members.	Number of Suicides of more than Five Years' Standing.	Ratio per 1000 Members.
Experience under Suicide Law	1902	242,867	16	.06	68	.28
	1901	220,603	10	.04	71	.32
	1900	201,622	13	.06	63	.31
	1899	190,057	10	.05	57	.29
Experience prior to Suicide Law	1897	192,078	23	.11	59	.30
	1896	183,160	25	.13	53	.28
	1895	166,134	33	.19	36	.21
	1894	153,750	25	.16	37	.24
	1893	143,192	25	.17	35	.24

The report shows, on the above table, that since the enactment of the law, the ratio of deaths per one thousand members has been smaller among five-year members and larger among those of a longer period of membership. While the number of five-year deaths in 1902 is larger than during the three years preceding, the ratio per one thousand is practically the same. It seems, therefore, to be a reasonable conclusion that, according to the experience of the Royal Arcanum, the suicide law has had a restraining influence on the tendency to suicide among the members whose period of membership brings them within its provisions.

Of the eighty-four members of the order who suicided in 1902, the average duration of membership was eight years and eight months. In this matter of age it is noted that the highest ratio is found, and continues to be found, between the ages of fifty-one and sixty (5.88 per one thousand), when the heyday of life is spent, and the inducement is strong to make some provision for the dependent. An examination of the family history in each of the eighty-four cases of suicide in 1902 does not reveal that there was evidence, at the time of admission, of material degeneration of the family stock, or tendency to suicide in the family of the insured. In one case, the applicant stated that the cause of his

mother's death was "nervous prostration from shock," probably the result of apoplexy. In another case it appears that the member's father was temporarily insane twenty years before the son was admitted, but that he had recovered and was then living at the age of seventy. The grandfather of one suicide was insane at the age of sixty-three, and still another had an epileptic brother. No member of either family had suicided. After one had been admitted his brother became insane. Of the eighty-four suicides in 1902, the supposed cause in thirty was "financial trouble." This cause has been assigned, not only when large losses have been experienced, but also when the brother's business, although always small, has gradually grown smaller, until a complete collapse has been feared. Twenty-three suicides had been in previous ill-health. The ill-health noted in many cases was due to insomnia, despondency, etc., conditions a man would be expected to suffer from if he were resisting a temptation to suicide, although he might be perfectly rational and comfortably situated in life. A few of them were suffering from incurable diseases. Six were classed as temporarily insane, "though it is probable that none of them were really insane at any time."

In the case of a suicide, who has been in the order less than five years, it is to be expected that his beneficiary will use every argument to obtain the insurance. He may claim that the suicide was suffering under the "delirium of other illness." In such cases the Medical Examiner in Chief contends that a physician is willing to stultify himself professionally, and council officers will exhibit more zeal and loyalty on behalf of the individual than the order.

Six cases of suicide were marked "Intemperate and out of employment," and seven, "Temperate and out of employment." Intemperance was given as the principal cause in five cases. "Domestic trouble" is the supposed cause in nine cases. Sixty-six suicides were married, eleven unmarried, and seven were widowers. A great majority of the suicides recorded during 1900-01-02 were men of moderate means, carrying from three to five thousand dollars of insurance. A few, however, carried much more; two carried forty-four thousand dollars each, and one was insured for nine thousand dollars. The bulk of these large sums was in each case in old line companies. In looking up

the supposed cause of the suicidal act in these five cases, the important fact developed, that no reasonably adequate cause could be assigned in four cases, hence the brothers were thought to have been "temporarily insane." The fifth suicide was thought to have become tired of life because he had lost some money. The Examiner thinks that unless there were motives for the crime which the investigating committee failed to discover, the "suicidal impulse" was chiefly responsible, except in the fifth case. Any man struggling against such a temptation would naturally see that his family was well protected financially, and the performance of this supposed duty to his family would unfortunately remove from him the influence which in the past had probably been to him the most powerful restraining force.

The conclusions of the Examiner in Chief of the Royal Arcanum are uncomplimentary to some of his brethren, and reflect severely on some medical officers of councils, but his facts are incontrovertible. We must believe, then, that there are men who look at life insurance much as a gambler looks at a valuable stake. The insured man must lose his life in order that his heirs may win the stake, and, so anxious were many members of the Royal Arcanum to help their heirs to win, that a five-year membership clause had to be introduced to save the Association from financial loss through suicide mortality.

J. J. C.

CHRISTIAN SCIENCE AND OTHER FLIGHTS OF IMAGINATION.

A CITIZEN of Toronto, a Christian Scientist, was recently found guilty of manslaughter in permitting his boy of sixteen to die of diphtheria without medical attention. The case was appealed, and the Court of Appeal holds that the judge at the first trial delivered a proper charge to the jury; that the term "necessaries of life" as used in the criminal code includes medicines and medical treatment.

A coroner's jury, in another recent case in this city, added a rider to its verdict urging that legislation be sought to make it a criminal offence for a Christian Scientist to treat any person under age. It seems almost unaccountable how Christian Science and other new cults spread and gain followers, even among seem-

ingly well-balanced persons of liberal education. Perhaps the love of promiscuous reading, and the craving of ladies of leisure for some "green pastures" (other than Piccadilly) to browse in, leads them on and on into the maze of Christian Science and other brain cake-walks, and ever and anon the fashion changes, and a new "rag-time" by a new freak is jangling in our ears, till even we physicians, the prosiest of men (who are, with con-



CHRISTIAN SCIENCE MOTHER — Eleanor, what is the matter?

CHRISTIAN SCIENCE CHILD — Oh, mamma, I got a terrible error of the mind in my stomach.—*New York Life*.

summate assurance, told by adherents of these various and sundry beliefs that we cannot understand, we are of the earth, earthly, and our treatment is nothing less than "madness and murder"), are led to exclaim that we are glad that there is (such) "method in our madness."

Another spasm of soulfulness, a variegated-scented-geranium sort of publication, came under our notice last month. It is

widely offered for sale, and we met it already in the hands of our most hysterical patient. Fortunately, the able editor of *American Medicine* comments fittingly and tersely upon the magazine to which we refer, and we take pleasure in quoting his words, and our readers will profit by perusing them.

“ ‘THE NEW THOUGHT.’—When one makes a study of the weeds of morbid psychologic literature and sees so luxuriously springing up in our country, and after he has grown tired enough of Mother Mary Baker Glover Patterson Eddy and her children, he will next come upon the ‘New Thought,’ edited by Ella Wheeler Wilcox and William Walker Atkinson. (In proportion to the fame of great ones the entire set of names must be spelled in full.) The perusal of a half dozen numbers of this periodical will only take an hour or two, and although so far of much interest and instructive, one will then begin to tire of the emptiness of the new thought, and of its oldness, and especially of its puerile and repetitive lessons. One will get a wearying conviction that if, as the publisher avers, there are 100,000 subscribers who find this childish stuff adapted to their needs, then surely the schoolmaster is not abroad in the land, or he is not doing his duty very thoroughly. Had we space we would like to reproduce a few of the hundreds of excerpts we had marked, to give an idea of this, the silly season of American growth. There is nothing directly vicious or nauseating about it, as is so common in other forms, but it is of course indirectly morbid. The people who are ministered to and treated are surely sick, very much so, mentally and socially, but the teachers, the high priestesses, and their little amen-sayers, the priests, are surely much ‘sicker.’ The mark of morbid self-consciousness is in every article and sentence of most of the crazy or crank literature so rampant among us. It is indeed not only marked by it, but is rather drenched in it, so that teachers, priestesses, and humble pupils seem to delight in standing and paddling in their own slush. It is an old and well-recognized law of disease and insanity that one is unconscious of the healthy organ. Most people, for instance, go through life without a moment’s attention to their knees, their ears, or their ‘desires.’ But let them get synovitis, middle-ear inflammation, or the New-Thought disease, and at once all their attention is absorbed by their knee, ear, or ‘mind.’ In all of this literature, fortune-telling, ‘character readings,’ ‘somniaopathy,’ phrenology, mediumship, ‘graphology,’ ‘astrology,’ ‘self-healing,’ hypnotism, occultism, and a hundred forms of morbid ‘ministering to the mind diseased’ form the staple of ‘instruction,’ the substance of page after page of magniloquent nonsense, and more

important still, fill all the advertising pages to repletion. The personal answers to correspondents illustrate it to satiety. 'How shall I get rid of fear?' 'How prevent mean thoughts?' 'Is love between the sexes incompatible with the highest mental states?' The jealous wife, 'misunderstood woman,' misunderstandings with husbands, How to get well, 'Soul-mates,' 'the wearing of glasses and the magnetic gaze,' bashfulness, the second divorce—these are some of the things the editor takes upon himself to write about to the victims who appeal to him for advice. 'Thought-Force' is a book by one of the omniscient teachers, and its purpose is thus stated by him to be:

"A wonderfully vivid book answering the questions: Can I make my life more happy and successful through mental control? How can I affect my circumstances by my mental effort? Just how shall I go about it to free myself from my depression, failure, timidity, weakness, and care? How can I influence those more powerful ones from whom I desire favor? How am I to recognize the causes of my failure and thus avoid them?

"Can I make my disposition into one which is active, positive, high-strung, and masterful? How can I draw vitality of mind and body from an invisible source? How can I directly attract friends and friendship? How can I influence other people by mental suggestion? How can I influence people at a distance by my mind alone? How can I retard old age, preserve health and good looks? How can I cure myself of illness, bad habits, nervousness, etc.?

"'Thought-Force' gives an answer to questions like these.

"It is evident that here is a new disease in the world, genuinely epidemic, too. The diagnosis is easily made, but is there any therapist would dare suggest a treatment?" W. A. V

ANNUAL MEETING OF THE ASSOCIATION OF MEDICAL HEALTH OFFICERS OF ONTARIO.

THE annual meeting of the Association of Medical Health Officers of Ontario was held at Peterborough, September 9th and 10th, 1903. The sessions of the Association were held in the Town Council Chamber and a citizens' meeting in the Y.M.C.A. hall. The afternoon of September 10th had been set apart by the local committee for the entertainment of the members of the Association, who were taken in carriages to the various points of interest in the town, after which they visited the remarkable "Lift Lock," on the Trent Valley canal. The Medical Association of Peter-

borough, who took a special interest in the entertainment of the Association, arranged for an excursion leaving Peterborough for Lakefield, September 11th, 8.30 a.m. There the members of the Association and their friends took a steamer for a trip through the beautiful Kawartha Lakes, reaching Burleigh Falls at 12 o'clock. At the Burleigh Falls Hotel, the Hon. J. R. Stratton, Provincial Secretary, treated the party to a superb luncheon. The trip was completed in time for members to leave Peterborough by the evening train. At the meeting of the Association, several good papers were read, some of which will be published in future numbers of this journal. For the ensuing year the officers are: President, Dr. J. W. Lane, Mallorytown; Vice-Pres., Dr. Chas. A. Bowlby, Brantford; Secretary, Dr. Charles Hodgetts, Toronto; Executive Committee: Dr. Bryce, Toronto; Dr. Shaw, Keene; Dr. Boucher, Peterborough; Mr. W. Chipman, C.E. Toronto; Mr. W. S. Richards, Chatham.

The next meeting of this Association will probably be held at Sarnia.

J. J. C.

EDITORIAL NOTES.

A Practical and Rapid Method of Making a Suspected Water Drinkable.—A practical method of making a suspected water drinkable is of the greatest importance to soldiers and camping parties. Drs. Vaillard and Georges, Professors at the Val-de-Grace Military School, in France, have devised a portable set of reagents for this purpose, consisting of two tablets and one lozenge. They are:

TABLET 1.

R Iodide of Potassium (dry)	10	grams.
Iodate of Sodium (dry)	1.560	"
Methylene blue	q.s.	

M. Make 100 tablets, each containing 0.1156 gram. of the mass.

TABLET 2.

R Tartaric Acid	10	grams.
Sulpho-Fuchsin	q.s.	

Make 100 tablets, each containing 0.100 gram. tartaric acid.

LOZENGE.

R Hyposulphite of Sodium	11.60	gram.
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Melt with a gentle heat and make 100 lozenges, each containing 0.116 gram.

When used the reactions are as follows: The simultaneous dissolution of an iodine tablet and a tartaric acid tablet produces exactly gram 0.06 free iodine, a quantity sufficient to purify a litre of water. There remains gram 0.0346 iodide of potassium, which facilitates the solubility of the iodine. The salts formed are: a little neutral tartrate of potassium, a little tartrate of sodium and potassium, and a small quantity of cream of tartar, owing to the presence of an excess of tartaric acid (gram 0.06454). The introduction into the water of a lozenge of hyposulphite of sodium produces the almost instantaneous disappearance of all the iodine, which is changed by the hyposulphite into iodide of sodium, in the proportion of gram 0.112 per litre. The following printed instructions are sent with each package: "The tablets should only be used to purify at one and the same time the contents of a pail or camp-kettle, that is to say, ten litres of water. Place at the same time a blue tablet (iodate-iodide) and a red tablet (tartaric acid) in a cup containing a little water. (If they are dissolved in a larger quantity of water, the carbonates contained in the water neutralize the tartaric acid intended to cause the reaction by which the iodine is liberated, and the intended reaction would not take place.) Dissolve the tablets by stirring them with anything handy. The liquid turns a deep yellowish-brown color. When the tablets are dissolved, pour the brown liquid into the water which is to be purified. The latter then turns to a yellowish color. Dissolve a white lozenge (hyposulphite) in a cup containing some water, and pour the latter into the pail or camp kettle. Shake. The water immediately becomes clear, and may be drank right away. When the water is muddy a preliminary filtration, even of the simplest kind, should precede the use of the chemicals. This precaution is all the more necessary to take, because organic matter held in solution in the water, and earthy and vegetable matters which may be in suspension in it, diminish very considerably the efficaciousness of chemical purification of water by iodine.

Canadian Canned Meats.—In Bulletin 85, Laboratory of the Inland Revenue Department, Ottawa, Canada, A. McGill submits, June 9th, 1903, a report on ninety-nine samples of canned meats furnished by American and Canadian manufacturers. In two of these samples the meat was quite spoiled; in three others it was

slightly spoiled. The remaining ninety-four samples were in good condition. It is worthy of note that one of the slightly spoiled samples contained boric acid. The fact may imply that the meat was not in good condition when put up, but it would be going too far to hold this as proved. With this exception, all samples containing preservatives, were found to be in good condition. All samples have been examined for preservatives. The only preservative found is boric acid, probably added in part as borax. This has been found in twenty-one samples, as follows:

	Samples.
Chicken	4
Turkey	1
Wild Duck	1
Paté de foie gras	1
Tongue	3
Ham	3
Chicken, Ham and Tongue	1
Canned Beef	3
Smoked "	2
Pigs' Feet	1
Brawn	1
	21

Mr. McGill adds: "In no case has the quantity of boric acid found exceeded the limit fixed by the British Parliamentary Commission, viz., 0.5 per cent., and in most cases it has fallen markedly below this amount."

Canadian Canned Vegetables.—In Bulletin 87, Laboratory of the Inland Revenue Department, Ottawa, Canada, A. McGill submits, July 14th, 1903, a detailed statement of the analysis of 100 samples of canned vegetables sold in Canada, and almost all of which were also prepared in this country. These may be classified as follows:

	Samples.
Canned Peas	27
" Corn	28
" Tomatoes	14
" Beans	20
" Carrots	1
" Beets	3
" Cabbage	1
" Asparagus	1
" Mushrooms	1
" Pumpkin	2
" Squash	2
	100

All these samples were examined for chemical preservatives, but no substances of this nature were detected. With two exceptions,

all the samples were found to be in good condition. In addition to the examination just indicated, the samples of peas were submitted to a test for copper. Traces of copper were found in two of the samples. Mr. McGill further says: "I have no evidence to show that these traces mean any intentional addition of copper for the purpose of intensifying color. A sample of French peas gave sixty parts of copper per million. I may add that the question of the wholesomeness of peas greened with copper is yet unsettled, but the general weight of opinion in English-speaking countries is adverse to the practice.

Butter-Milk as a Food for Young Children Affected with Gastro-Enteritis.—Dr. Arraga, of the Buenos Ayres hospital, Argentina, has experimented with butter-milk as a food for children affected with gastro-enteritis. The following instructions were given for the preparation of the butter-milk used in his experiments: "The butter-milk is taken from a cream which has not been exposed for more than twenty-four hours to the lactic acid formation. When obtained in this condition, it is treated in the following manner: to one litre of butter-milk add twenty-five grams of wheat flour and thirty-five grams of cane sugar. This mixture is then heated for two minutes at least, stirring it continually, and letting it boil three or four times. It is then put into sterilized bottles, which are kept on ice. Before serving it, the butter-milk is placed on a water bath at the temperature of the body." This product has given Dr. Arraga the very best results in serious cases of gastro-enteritis.

The Use of Salicylic Acid as a Food Preservative.—In the *Lancet*, March 14th, 1903, Drs. Macalister and Bradshaw report on the employment of salicylic acid as an agent for preserving foods. They think that the objections made to the use of moderate quantities of salicylic acid for this purpose are not defensible, and they challenge those who maintain the contrary opinion to publish a single case in which an accident has arisen from such use. They declare that the employment of this substance—harmless in their opinion, when mixed with food in quantities, such as are used in industrial purposes—enables manufacturers to put on the market foods which are healthful, agreeable, and inexpensive, and of such a nature as to render the greatest services in the alimentation of people in moderate circumstances. The authors

declare that their conclusions have been reached "after mature consideration, and with an adequate sense of responsibility."

Action of Bitter Substances on the Small Intestines.—Dr. A. Jodlbauer, in *Arch. de Pharmacodynamie*, t. x., p. 201 1902, gives the results of his studies on the absorption of a solution of sugar from an isolated coil of intestine, under the influence of different bitter substances: hop, quassine, absinthine, and sulphate of quinine. He shows that these bitter substances did not exercise a constant action on the absorptive power of the intestine. They have a weak secretory action. In general, however, secretion and absorption are increased when the bitter substance remains in the intestine for an hour. This increase may be observed even after the lapse of four days. The action of bitter substances in the alimentary canal is local, and appears to be specific.

Does the Farmer Skim the Milk?—Out of 760 samples of milk and cream analyzed in the Laboratory of the Chicago Health Department, for the week ended August 15th, 1903, sixty were found below grade. Among these 760 samples from all sources, 112 were taken at the trains before the milk had come into the possession of the city dealer. Out of these 112 samples, four were found below the standard of butter fat, and forty below the standard of total solids. Thus, while the percentage of samples below grade from all sources was only 7.9, the proportion of samples below grade in the milk and cream direct from the farmer, and before the wicked city dealer had an opportunity to tamper with it, was nearly 40 (39.2) per cent. Dr. Reynolds very properly remarks that: "If the State Pure Food Commission will take care of the farmers, the Bureau of Milk Inspection of Chicago will continue its care of the city dealers." J. J. C.

PERSONALS.

DR. J. E. ELLIOTT is moving this month from Church Street to 69 Bloor Street East.

CONGRATULATIONS are in order to Dr. J. M. MacCallum, of 13 Bloor Street West, on his marriage to Miss McMaster, of Toronto.

DR. and MRS. J. H. COTTON, of Spadina Ave., returned from the Old Country two weeks ago.

DR. J. T. CLARK, of this city, was married last month to Miss Jessie Malcolm, of Kincardine, Ont.

DR. W. H. PEPLER removed last week to his new, brown stone residence recently purchased; 600 Spadina Avenue.

DR. J. J. CASSIDY is removing this week from 69 to number 43 East Bloor Street, which he recently purchased.

DR. J. J. CASSIDY'S daughter, Miss Dolorosa Cassidy, was married at St. Basil's Church, St. Joseph Street, on September 9th, to Mr. Doherty, of Guelph. The bride and groom left immediately on a six weeks' trip to Winnipeg, and through the West, and will settle down in Guelph the end of this month.

THE LATE DR I. N. LOVE.

THE following tribute was paid to the memory of Dr. Love by the editor of the *Alkaloidal Clinic*, in the August number of that publication:

"I. N. Love is dead. Stricken down while making an address at a banquet, he may be said to have fallen in the most congenial of his pursuits, the one for which he was most admirably fitted by nature. He will be sorely missed. There was that about his buoyant, happy, optimistic nature that was irresistible, that made one condone any faults that might be seen. No man in America had more devoted friends; for everyone who knew him, knew that Isaac was ready to share his purse with you, or heave a brick at your enemy at the slightest intimation.

"Some of our readers may remember the brilliant group that collected nightly in the hotel at Newport, when the A. M. A. held its meeting there. Wood is gone, and Davis, and Rohe, and Owen, and now Love has joined the rapidly increasing majority on the other side. Well, it is one of the merciful provisions of Nature, that as we approach the river the ties that bind us to this side weaken, and those that attract us yonder grow stronger. Good-bye, Love. Surely, in the great Beyond that happy spirit is not wasted."

News of the Month.

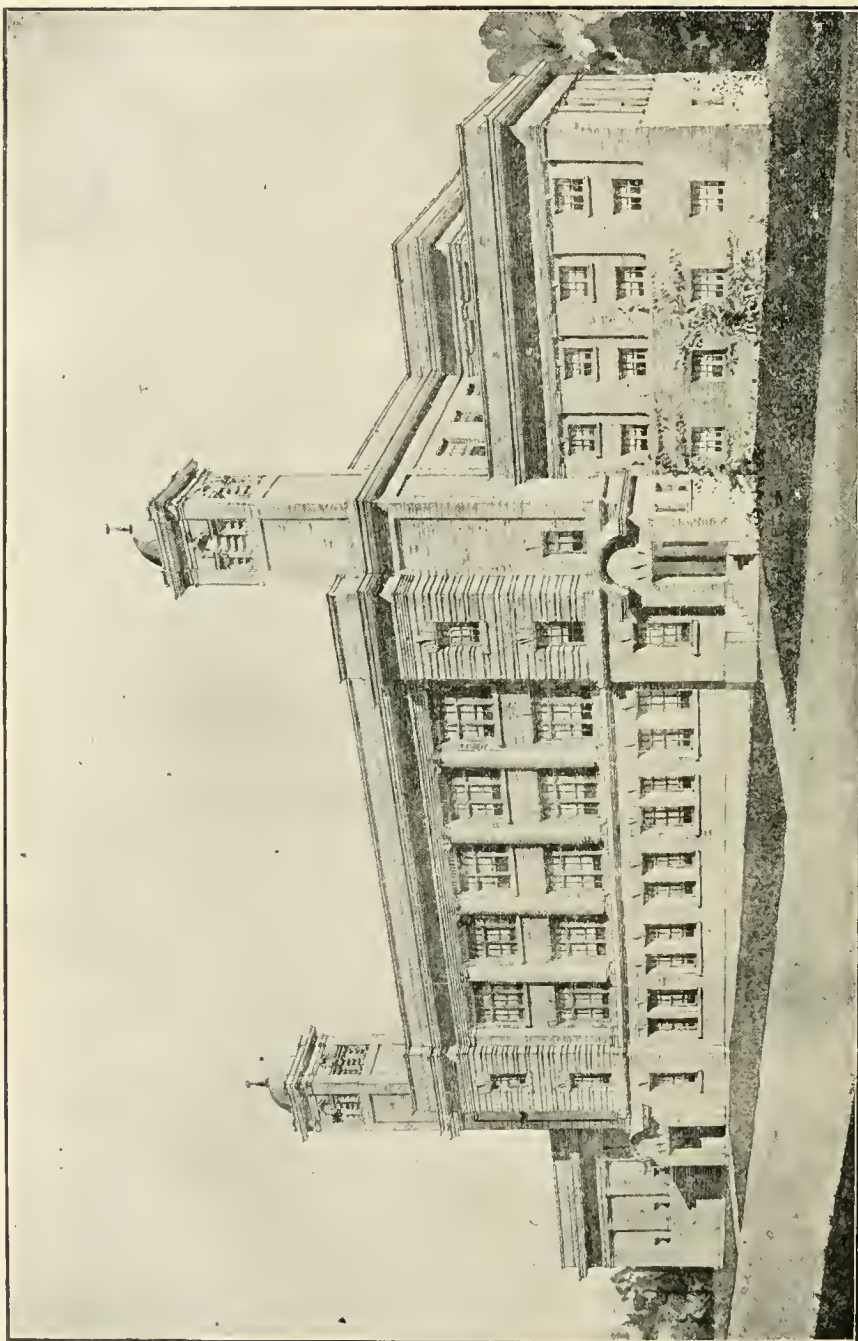
THE OPENING OF TORONTO'S NEW MEDICAL BUILDING.

THE opening of the new building of the Toronto Medical College in Queen's Park, on the first of this month, is a red-letter day in the history of medical education in Canada. The event marks the practical consummation of the federation of the two great medical colleges in the city, Trinity and Toronto. Their united staffs of professors will make one of the largest and strongest medical faculties on the continent, and the registration of students will, it is expected, total over 600—by far the largest attendance at any medical college in Canada, if not in America. The event further marks the gathering of some of the best known medical men in the world to be present at the opening of what is generally regarded as the completest and most up-to-date medical college building on the continent. It is the auspicious inauguration in Toronto of the best and most efficient accommodation for the teaching of scientific medicine that can be provided.

On Friday afternoon, the 2nd inst., at three o'clock, there will be a meeting in the large new lecture theatre, when the new laboratories will be formally declared open, and the inaugural address will be delivered by Professor Sherrington of the University of Liverpool, England. Other distinguished guests will be present and will take part, of whom may be mentioned Professors Welch and Osler, of Johns Hopkins; Professor Keen, of Philadelphia; Professors Minot and Bowditch, of Harvard; Professor Chittenden, of Yale; Professor Roddick, of McGill; Professor Lee, of Columbia; Professor Barker, of Chicago; and Professor McMurich, of the University of Michigan.

The accommodation of the new lecture theatre will of necessity be limited, and the invitations will therefore be restricted to individuals to whom the Committee think wise to issue such.

The opening lecture of the seventeenth session since the re-establishment of the Faculty of Medicine of the University of Toronto, will be given in the University Gymnasium, on Thursday evening, October 1st, at 8.30 o'clock. This lecture will be mainly a students' function, and whilst a considerable number of guests will be invited, all students will be admitted on presentation of their registration tickets.



NEW MEDICAL BUILDING, TORONTO UNIVERSITY.

On the forenoon of Friday, the 2nd inst., other of the distinguished strangers will address the students in the lecture theatre.

University convocation will take place on Friday afternoon in the University Gymnasium, and certain honorary degrees conferred.

A banquet will take place in the evening, when the invited guests from abroad will be entertained by the Faculty.

The attendance at the Toronto Medical College has been growing at a phenomenal rate during the last few years. In 1897 the total registration was 295; last year it totalled 424, and the year before 474. To properly handle the increasing classes, the new building was an absolute necessity. There is ample accommodation now for over 700 students.

This building is situated between the University Library and the anatomical wing of the Biological building. It has cost something like \$175,000 to complete. It is three storeys in height in front, with an additional storey and sub-basement in the wings, which extend eastward. Two large lecture rooms are provided which will flank the main building; the larger will have accommodation for about 350 students; the smaller for about 200 students.

In the south wing, in what may be called the basement, are situated caretaker's quarters, lavatories, recreation rooms and reading rooms for the students; in the same storey in the north wing is placed a large museum of hygiene.

The three main floors of the building are arranged upon the unit system of laboratory construction proposed by Professor Minot, of Harvard University. The main features of the unit system are all comprehended in the character of the laboratory "unit" room. This must, first of all, be no larger than is required to accommodate readily the maximum number of students whose practical instruction a single demonstrator can efficiently guide and control. It must also be of such dimensions that it can, at need, be made to serve as a museum, a library or reading room, or a small lecture room. The units, further, must be placed with respect to one another, preferably in pairs or series, that, by the removal of the partitions separating them, rooms of larger dimensions may, when desired, be obtained at a minimum cost and in a short time. The dimensions of such a unit, as determined by Professor Minot, are 23 by 30 feet, and this room will accommodate twenty-four working students, which number, experience shows, is the largest that should be under the supervision of a single class demonstrator.

The south wing is occupied by the Arts Department of Physiology, whilst the main portion of the building and the north wing

will accommodate the final departments of medicine. On the ground floor in the main portion are situated in front of the dean's room, a large faculty room, a lavatory and a library, behind which is placed a large pathological museum.

In the north wing in this floor are placed a chart and preparation room back of the lecture theatre, preparation and store rooms for the pathological museums, and laboratories for gross pathology. The second and third floors in the same wing and in front contain the laboratories of pathological histology and bacteriology with rooms for the Professor of Pathology and demonstrators, and unit rooms for small special classes. In the north wing on the third floor three units are occupied by the Provincial Board of Health for its bacteriological and chemical laboratories.

Architecturally, so far as the extension is concerned, the utmost has been done considering the difficulties that the enormous window space interposed. The appearance of the buildings, however, though of course not in the same class as the University building from the architectural point of view, is on the whole, very acceptable.

A feature of special interest is presented by the small research rooms. The half units are intended to be used for various purposes, but chiefly for small groups of students pursuing advanced work or for special lines of research, but each of the fifteen small rooms, shown in the plans as adjacent to the lecture theatres, is reserved for individual workers carrying on selected investigations. These, with the other arrangements described, have been designed with a view of making the buildings a home for research.

The building is in every way thoroughly up-to-date, and in the extent of window light for the laboratories, it is unique on this continent.

TORONTO UNIVERSITY MEDICAL FACULTY ON DR. RODDICK'S BILL.

At the annual meeting of the Medical Faculty of the University of Toronto the following statement was agreed to as embodying the views of the faculty upon Dr. Roddick's bill providing for Provincial reciprocity in connection with medical registration, and upon the proposed alteration in that bill suggested by the Montreal Medical Society:

The Medical Faculty of the University of Toronto desire to call attention to some recent developments in the matter of Dominion medical registration which may, if allowed to proceed further without opposition, result in prejudicing the course of medical education in this Province.

As is well known, Dr. Roddick, after several years of effort, succeeded in persuading the Dominion Parliament to pass an Act providing for the establishment of a Dominion Medical Council empowered to hold examinations in medicine, and to give licenses to practise which shall be valid in any portion of the Dominion. This Council can, however, be constituted only when all the Provinces of Canada have accepted the provisions of the Act.

The Act was passed in 1902, and since then all the Provinces, with the exception of that of Quebec only, have expressed their acceptance of it, and have taken the steps necessary to give their acceptance effect. In the case of Quebec a bill providing for the adoption of the Act was defeated in the Legislature on the 15th April, and the explanation advanced for this action is that the medical profession in one of the universities of that Province are unable to accept the Act as it stands, and that this has influenced the attitude of the Legislative Council and Assembly.

It will be recalled that before the Act received the sanction of Parliament there were several clauses in it in regard to which considerable discussion obtained on the part of the representatives of the various institutions interested in medical education. One of these was that dealing with the privileges to be accorded to the holders of university degrees. According to sections 3972 and 3977 of the revised statutes, rules and regulations of the College of Physicians and Surgeons of the Province of Quebec, graduates in medicine of Laval University, McGill University, and the University of Bishop's College, who have passed four years in the study of medicine, are entitled, without further examination as to their knowledge and skill, to the license to practise medicine in the Province of Quebec, and graduates in medicine of the University of Manitoba are given like standing in that Province, but all who wish to obtain a license to practise in Ontario, must undergo the examinations conducted under the authority of the Medical Council of this Province, whether they are graduates of a university or not. In order to prevent unjust discrimination between the universities of Quebec, on the one hand, and those of Ontario on the other, the representatives of the latter obtained the insertion in the Act of clause 3, sub-section 1, section 10, which reads as follows:

"The possession of a Canadian university degree alone, or of a certificate of provincial registration, founded on such possession, obtained subsequent to the date when this Act shall have become operative, as provided in sub-section 3 of section 6 hereof, shall not entitle the possessor thereof to be registered under this Act."

The representatives of the Ontario universities were told when they suggested this clause that it would make it impossible for the Province of Quebec to accept the Act, and interest is given this

statement by the fact that it is this clause which has been in large part the cause of the refusal of that Province to pass the legislation required to make the Act operative.

One of the recent developments referred to is the agitation which has arisen in the medical profession in the Lower Provinces for amendments to the Act. The question was brought before the Montreal Medical Society several months ago, and on March 31st last the report from the Special Committee appointed to deal with the subject, was laid before the society, and, after some discussion, adopted. A portion of the report was published in the Montreal press of the following day, and it would appear from this that inter-provincial registration without the intervention of a Dominion Medical Council was favored as the proper solution, but if such reciprocity between the Provinces in the matter of medical registration could not be brought about, Federal legislation embodying amendments to the Roddick Act should be obtained.

"We submit," says the report, "that the bill is neither desirable nor possible in its present form. We submit, however, that the Roddick bill, as here amended, will meet with the desired results and safeguard the general and special interests of the Province in matters pertaining to superior and secondary education."

The following are the amendments suggested to the measure:

"1. The Province will name a certain number of representatives, selected either from amongst the doctors, the members of the College of Physicians, or from the duly recognized universities.

"2. These members to the number of forty, more or less, will constitute a Federal Board, which will have power to order an examination, and to deliver a Federal license, which will be recognized by each of the Provinces, on payment by the candidate of the provincial local license.

"3. Only these will be admitted to pass their examinations who are licensed doctors in one of the Provinces of the Dominion, or a licentiate of a foreign university, duly recognized by the laws of their respective countries.

"4. The medical students, duly inscribed by virtue of provincial laws, at the moment the laws comes into force, cannot be questioned upon other matters than those taught them in the schools or universities prior to this law."

All the amendments suggested deal with important sections of the Act on the basis of which the Roddick bill, before it became law, was accepted in this Province, and it would appear, therefore, as if the whole question is to be again opened and brought before the various bodies interested. This, perhaps, is an advantage, because, as the Act at present stands, it is inoperative so long as Quebec objects to it, and a renewal of the discussion may

in the end lead to its acceptance in quite its present form on the part of the Province, or prepare the way for bringing it into operation so far as the other Provinces alone are concerned. As pointed out, the great difficulty on the part of Quebec is the desire of its universities, or, at least one of them, to extend over the whole Dominion its prerogatives, which at present are confined to that Province. In other words, they would give the holder of a Quebec University degree in medicine the right, without further examination, to practise medicine anywhere in the Dominion. That is the meaning of the proposal regarding inter-provincial registration without the constitution of a Dominion Medical Council, and to state it in this way is to dispose of it.

It is, however, in regard to the third of the suggested amendments that particular attention is desired. It would provide that a graduate in medicine of any one of the three universities of Quebec would, after registration in the College of Physicians and Surgeons of that Province, be entitled to proceed at once to take the examinations of the Dominion Medical Council, while graduates in medicine of other universities, that of Manitoba excepted, would be allowed to take the same examinations only after they had passed the examinations of a Provincial Medical Council. The reason for this proposal is that furnished in a leading article, apparently inspired, in a Montreal newspaper of April 1st, which states that this suggested amendment aims at preserving to the universities of Quebec the privileges they now enjoy, and of which the Roddick Act would deprive them !

If this amendment should be adopted it would impose on every medical student in a university of Ontario three series of examinations, one for his degree, one for his provincial license, and the third for that of the Dominion, while the student of Laval, McGill or Bishop's College would have to undergo two, the first and the last. This would involve a very serious discrimination in favor of the Quebec universities, and it would result in compelling the student in an Ontario university to spend about two months out of every session of eight months in undergoing medical examinations. To escape the burden and the number of these, all in this Province proposing to study medicine would go to the medical teaching institutions of Quebec. This would not, it is certain, make for an elevation of the medical standard.

It is obvious, therefore, that the suggested amendment cannot be excepted in Ontario. This being so, what can be done to bring the Act into operation ?

It is possible that after further agitation the representatives of the profession in Quebec may be led to see that the Act, as it now stands, offers fewer difficulties for all the Provinces than it would with amendments such as those suggested, but, failing that, there are two other solutions, one of which would bring the Roddick

Act into operation, but not so far as Quebec is concerned, the universities and profession of that Province in that case having no representation in the Council under the Act. The other, and, perhaps, the more practicable, solution would provide that all students of the universities of Quebec, as demanded, by the Montreal Medical Society, should be required, as heretofore, to obtain the license to practise in that Province before being allowed to present themselves for the examinations of the Dominion Medical Council, but that those of the universities of the other Provinces should be permitted to proceed directly to the same examinations, while, further, all students, after passing the required Dominion examinations, should be allowed the license to practise medicine in any Province on the payment of the provincial registration fees.

The first solution would have one disadvantage. It would not bring about reciprocity in medical registration with the other parts of the empire, but this would be greatly outweighed by the advantage of having one licensing body only for all the Provinces except Quebec.

The second solution offered would preserve for the universities of Quebec their privileges in that Province, while it would not work such injury to the universities of Ontario as the alteration of the Roddick Act proposed by the Montreal Medical Society would inflict.

WHY DR. RODDICK'S BILL WAS REJECTED AT QUEBEC.

THE defeat of the Quebec bill for the adoption of the Roddick Act was so far a foregone conclusion, that it caused no comment among the medical profession of Montreal. The large element who favor Dominion registration are inclined to regret the rather characteristic turn taken by the discussion on the second reading, but otherwise they feel that the cause did as well as could be expected.

Dr. E. P. Lachapelle, head of the Provincial Board of Health, and one of Dr. Roddick's chief supporters, said that the work of educating Quebec up to the Act was progressing, and he hoped that the result would be achieved after one or two more such fights. There were some minor defects in the Roddick Act as adopted by the Commons, which, if removed at Ottawa this or next session, would somewhat facilitate adoption at Quebec.

It is generally admitted that the inter-provincial registration scheme devised by the Montreal Medical Council, and boomed by numerous professional organizations in the Province, had no further object than the killing of the Roddick Act. In operation, it would have no further effect than to simplify slightly the cumbersome mechanism of taking out a diploma by an already qualified

man who has moved into a new Province. It leaves the provincial examination system standing, and the most brilliant professor of a Toronto medical college could not practise in Quebec without writing examination papers for a board of the Quebec College of Physicians and Surgeons.

Moreover, it would fail entirely to attain one of the chief ends of the Roddick Act—imperial recognition of Canadian licenses. The legal standing and professional value of the license to practise given by each Province would not be affected in the slightest.

It is, therefore, exceedingly doubtful whether inter-provincial registration will be heard of again until it becomes again necessary to head off the Roddick Act; and by that time the extreme hollowness of the device will be generally apparent. The real "defect in the Roddick bill," which caused its defeat at Quebec, is quite inherent in the nature of the proposal, and lies in the fact that it interferes—or will interfere by Quebec's own consent when adopted—with the existing rights of Provincial control of the standard of qualification. That such interference was contemplated even by those who brought about Confederation is shown by the fact that the regulation of the medical profession appears in the Quebec resolutions preceding the B. N. A. Act among the functions of the Dominion.

One Quebec suggestion for amendment of the Roddick Act in detail is probably worth considering, and its acceptance would do much to popularize the measure here. We are less basely utilitarian than our sister Provinces, and demand more "culture" of our doctors. Therefore, we object to the proposed high school arts qualification instead of our own "classical college" standing. But the difference is not vast.—*Quebec Exchange*.

THE JUST DESERTS OF THE SUBSTITUTORS.

THE following is the final decree of the Circuit Court of the United States, District of Massachusetts, and dated July 16th, 1902, in the case *Fairchild Bros. & Foster vs. Walter L. Conwell*, and which will be found full of interest to all physicians who realize more and more what injustice is done to their patients, as well as themselves, by druggists who resort to substitution:

Colt, J.—The above cause came on to be heard at this term upon the motion of the complainant to take for confessed the bill of complaint filed therein, and it appearing that the complainant filed its bill of complaint on the second day of May, 1902, against the defendant, Walter L. Conwell, and that process of subpoena issued ordering the defendant to appear June 2nd, 1902, and answer said bill on or before the first Monday of July, 1902, and was duly served upon the defendant and return made thereon, and

that the defendant has not appeared to plead answer or demur to said bill of complaint, but has confessed judgment in said action, and it appearing that this court has jurisdiction of the subject matter and of the parties hereto, it is hereby ordered, adjudged and decreed that the said bill of complaint and the allegations therein contained are taken as confessed against the defendant, Walter L. Conwell, and that said allegations are true; and thereupon it is ordered, adjudged and decreed as follows:

That among the pharmaceutical preparations manufactured and sold by the complainant is a certain preparation called by it "Fairchild's Essence of Pepsine," and is commonly known among physicians and druggists as "Fairchild Bros. & Foster's Essence of Pepsine," or "F. B. & F.'s Essence of Pepsine," or "Essence of Pepsine (Fairchild)," by which name it is, and for many years last past has been, distinguished from all other pharmaceutical preparations;

That the complainant has the sole right to make use of the name of "Fairchild" in connection with the term "Essence of Pepsine" as a trade name in connection with the sale of any and all preparations, and especially in connection with the sale of any preparation which might otherwise be designated as "Essence of Pepsine;"

That the defendant, Walter L. Conwell, is, and for some time past has been, conducting a retail drug store and prescription pharmacy at No. 210 Shawmut Avenue, in the City of Boston, in the State of Massachusetts;

That prior to the date of said bill of complaint the defendant, Walter L. Conwell, by himself, and by the clerks and attendants employed by him and working under his direction and superintendence, knowingly dispensed and sold at the said drug store, in instances where "Fairchild's Essence of Pepsine" was specifically designated in physicians' prescriptions brought to said drug store to be filled, preparations markedly different in chemical compositions from "Fairchild's Essence of Pepsine," and inferior thereto, and which were never made or sold by Fairchild Bros. & Foster;

That the said acts of the defendant, Walter L. Conwell, his agents and employees, are in violation of the complainant's rights, and are unlawful and contrary to equity, and fraudulent upon the public;

It is therefore ordered, adjudged and decreed that the defendant, Walter L. Conwell, his agents, servants and employees be, and they hereby are, perpetually enjoined from selling or dispensing either at the drug store of the said Walter L. Conwell, at No. 210 Shawmut Avenue, in the City of Boston, or elsewhere, any "Essence of Pepsine" or pharmaceutical preparation of any sort or kind whatsoever not manufactured by Fairchild Bros. & Foster,

in imitation of or in substitution for "Fairchild's Essence of Pepsine" whenever "Fairchild's Essence of Pepsine" is prescribed or asked for, and that they be, and hereby are, perpetually enjoined from representing by any word or action that any preparation sold by the said defendant not manufactured by Fairchild Bros. & Foster is "Fairchild's Essence of Pepsine."

It is further ordered that a writ of injunction restraining the defendant as above set forth issue forthwith.

It is further ordered, adjudged and decreed that the defendant pay to the complainant the costs of this suit to be taxed by the clerk of said court, and that execution issue therefor according to the rules and practice of this court.

ITEMS OF INTEREST.

Polk's Medical Register.—The eighth revised edition of this well-known work is now under way, and will appear in due time. Send for descriptive circulars, and do not be deceived by imitators. Polk's Medical Register and Directory has been established sixteen years. R. L. Polk & Co., Publishers, Detroit, Mich.

A Woman Ship Doctor.—According to a British weekly journal, a Mlle. Sarah Broido, a young woman physician, has obtained an engagement as ship's doctor on board a steamer plying between Marseilles and Algiers. Mlle. Broido is the first French medical woman who has been employed in such a capacity. —*Medical Record*.

New Surgeon-Lieutenants.—The undermentioned have passed proficiency examinations for the medical service, and are qualified for the rank of surgeon-lieutenant or captain; Surgeon-Lieut. W. A. Henderson, 27th Regiment; Surgeon-Lieut. J. W. Shaw, 33rd; Surgeon-Lieut. R. G. McDonald, A.M.S.; D. Hutcheon, M.D., H. H. Sinclair, M.D.

A Temperance Hospital for Chicago.—A hospital to cost \$75,000 is to be erected in Chicago, the physicians of which must use no alcohol in their prescriptions. The hospital will be called the Frances E. Willard National Temperance Hospital. The three schools of practice—regular, homeopathic, and eclectic—will be represented on the medical staff.—*Medical Record*.

Death of First Woman Physician—Dr. Emily R. Robbins, who is said to have been the first woman medical practitioner in the United States died in Philadelphia, August 31st, aged seventy-one years. Dr. Robbins was born in Philadelphia, of Quaker parents, and graduated in 1857. She practised for a time at Fort Madison, Iowa, afterward marrying a classmate. At the begin-

ning of the Rebellion, Dr. Robbins and her husband came to Philadelphia, where, during the war, she devoted most of her time to the wounded soldiers who were brought to the various hospitals there.

Mont Blanc Place for Consumptives.—Prominent French physicians are now turning their attention to Mont Blanc and the Mer de Glace as possible sites for consumptive sanatoriums. Dr. Kass, director of the Paris Municipal Sanatorium, took a number of pauper consumptives to the Mont Blanc Observatory this week to study the effects produced upon them during the month. Dr. Bayeux, of the Saint-Lazare Infirmary, is carrying out similar investigations on the Mer de Glace, and has expressed the opinion that the disease can be coped with, and perhaps cured, by proper treatment there.

A Bed-flaking Contest.—At Binghampton, N. Y., twelve women nurses in uniform, caps and aprons, took part in a bed-making contest at the Binghampton Hospital field recently. Six beds were spread out in line on the tennis court with the bedding lying on the side of each. The contestants had to start from the opposite end of the tennis court, race to the beds, make them, and race back to the starting-point. The pillows had to be put inside the cases. Miss Elizabeth Holmes was the winner, and received the prize of \$2. Her time was two minutes and 19 seconds. Miss Sadie Webster won second prize.—*N. Y. World.*

Physicians' Book-keeping.—It is a well-known fact that book-keeping to the average physician is his *bête noir* and that professional men would be far better off financially if they paid a little more attention to the business side of practice. Nowadays it costs a mere bagatelle to employ someone to keep the books written up and accounts rendered, as they should be, once a month, especially when results are looked at. A practical accountant, with the best of references and long experience, wishes to make arrangements with physicians to keep their books and render their accounts, in the evenings. His terms are very moderate and he solicits a personal interview. Those interested address, "Accountant," Box 71, CANADIAN JOURNAL OF MEDICINE AND SURGERY, TORONTO.

Longevity of Ministers.—It is the universal testimony that clergymen reach the highest age, being close run by gardeners and vine dressers. Ordinary agricultural laborers, although their occupation is so largely in the open air, are not conspicuous as long lived, except in France, Sweden, and England. People working with wood are longer lived than those whose occupations are with metals, and both attain a higher age than textile workers and workers in chemical industries. The shortest lived people are miners, except in England, where the superior mining regula-

tions and admirable sanitary arrangements have a beneficial effect. In England and Norway sailors and fishermen live to a far greater age than in Germany and France.—*Medical News*.

The Canadian Medical Exchange.—We draw the attention of physicians who may desire to sell their practices, or those who may wish to buy a medical practice, to the Canadian Medical Exchange. Dr. Hamill has been conducting this important department of medical affairs for the last ten years, and from close knowledge of his method of doing business, we can strongly recommend him to the confidence of the profession, and advise any of our readers who may have any business in this line, to place it in Dr. Hamill's hands, with the full assurance that the utmost business ability, integrity, and professional secrecy, will be utilized. We have examined his method of doing business, and must admit that he has systematized it to perfection, so as to meet the wants of the profession most fully.

Pathology as Seen in Works of Art.—Dr. Paul Richter, the recently-appointed professor of anatomy in the Paris Ecole des Beaux-Arts, was formerly an assistant of the eminent specialist in nervous disorders, Professor Chareot, at the Salpetriere. For him he made a number of sketches demonstrating hysterical symptoms. While doing this work he was led to adopt the maxim that there can be no perfect beauty without perfect health. He noted pathological features in many well-known works of art, and concluded that faulty models were responsible. He accordingly advises his pupils to avoid the usual atelier models, and seek for the lines of human beauty among the acrobats in the circus, the blacksmiths, and the partially nude laborers at the docks and in the fields. "Beauty in action" is his motto.

The Bacillus in War.—The Macedonian revolutionists, it is reported, threaten, in case they cannot bring about a war between Turkey and Bulgaria, or induce European intervention, to decimate the population of the Macedonian cities controlled by the Turks by poisoning the wells with the bacilli of the plague. This is really a formidable threat, easy of execution, terrible in its consequences, and picturesquely barbarous. The plague bacilli can be put up in soluble capsules of small size, and might be dropped into wells without attracting any attention. From the point of view of the advantage of the human race it is not certain that the depopulation of this part of the world by pathogenic bacteria would be an unmixed misfortune, but this consideration in no wise mitigates the fiendishness of the crime of planting the seeds of a subtle and uncontrollable infection in soil where it would linger for years, with almost inevitably fatal consequences to all.—*Medical News*.

San Francisco's Chinatown Threatened.—A report from Washington says that officials of the Public Health and Marine Hospital Service are in consultation with representatives of the business men of San Francisco in regard to a proposition to abolish Chinatown. It is believed that the seeds of plague are kept alive there, and the existence of the quarter thus presents a constant menace to the health of the city. The attempt to stamp out the disease there has been only partly successful, although the most rigid sanitary measures have been practised. Several months ago Mexico and Ecuador declared a quarantine against San Francisco, and the national conference of State board of health officials condemned the hygienic conditions of Chinatown, and publicly deplored the danger of a spread of the plague to other States. It is believed by many of those most competent to judge that the situation cannot be permanently improved unless Chinatown is abolished.—*Medical Record*.

Second Greatest Medical Library in the World.—In an interesting article contributed to the *Public Ledger* of Philadelphia, by Dr. Frederick P. Henry, honorary librarian of the College of Physicians, it appears that the second greatest medical library in the world is possessed and controlled by the College of Physicians of Philadelphia, the largest being that of the Surgeon-General's Office in Washington, D.C. The College of Physicians dates its birth from the minutes of the first meeting, which was January 2nd, 1787. At the last enumeration there were 67,243 volumes in its enormous collection. The library is not only open to every one, whether physician or layman, for consultation, but the Fellows have the privilege of taking one book to the number of "1 folio, or quarto, or 3 octavos, duodecimo, or bound periodicals" for a period of two weeks, and exceeding the time if the book has not in the meantime been asked for, for two weeks more. There is only one restriction with reference to non-members, namely, that they must present a card or note of introduction to the librarian from one of the Fellows of the College.—*American Medicine*.

Asepsis at the Soda Fountain.—The movement by the Board of Health to enforce more perfect cleanliness in barber shops is wholly commendable, and no objection has been met except among the most ignorant. The same authority might be advantageously exercised over the popular soda fountains and its utensils. In one of the largest retail drug stores in New York, where the sale of soda water is made a specialty, dirty glasses removed from the counter were placed beneath a faucet of running water and shaken for a few seconds, then refilled with soda water for the next customer. Even in one's own home, where the danger of infection

is, to a certain extent, a known quantity, one insists upon having the glasses that are removed from the dinner table at least washed with soap and hot water. How much more should similar cleanliness be observed in a place frequented by the general public. The simple immersion of the glasses in an antiseptic solution, which should not be scarce in a drug store, for five minutes, and subsequent rinsing with plain water, would remove all danger, and would assure the customer that he was getting nothing with his soda that he had not paid for.—*Medical News, N.Y.*

Hydrotherapy at St. Catharines.—May we not conclude that much of the beauty of the Roman women and the prowess of Roman warriors was due to the national custom of bathing, which became such an important part in the daily economy of Roman life? The use of tonic waters has long been known, and springs of many kinds now tempt the afflicted ones. It is no longer necessary to go to Germany or Switzerland, as waters quite as curative are found scattered over America. The tonic influence of sea bathing is well known, and in St. Catharines, Ontario, are found springs denser than sea water, while clear and sparkling in appearance; heated to a temperature varying with the condition and ailment of the patient, the water is drawn into porcelain tubs in which the patient is immersed, and while therein rubbed and massaged, then placed in blankets and put to rest on a couch, this treatment is combined with electricity, massage and rest. The whole process is in charge of a physician. Not only is the particular ailment benefited, but the whole system is toned and invigorated in a natural way. There are many attractive points in the neighborhood, and at "The Welland" will be found all the comforts of a first-class hotel, sun parlor, roof promenade, library, and music rooms. Long distance phones in each room. For information apply Malcolmson Bros., St. Catharines, Ontario, or Grand Trunk Railway Agents.

Messrs. Howards & Sons, of Stratford, near London.—Messrs. Howards & Sons inform us that they have entrusted to Mr. Edmund White, B.Sc., F.I.C., the management of that branch of their business dealing with the manufacture of fine chemicals, and carried on under the style of Hopkin & Williams, of Cross Street, Hatton Garden, E.C., which until recently was under the management of the late H. C. Everson, F.I.C. Messrs. Hopkin & Williams have a newly built and equipped factory at Ilford, where the laboratories afford ample scope for research work in chemical technology, and extension of business under Mr. White's direction. Mr. White, who is a Bachelor of Science of London University, and a Fellow of the Institute of Chemistry, was formerly Bell Scholar in the Pharmaceutical Society's

School, acting afterwards as demonstrator in the chemical laboratories at Bloomsbury Square. For the last fourteen years he has been in charge of the pharmaceutical department at St. Thomas's Hospital, where he has carried out original work dealing with pharmaceutical chemistry, one of the latest contributions from his laboratory being the solution of the time-honored kino-gelatinization problem. Mr. White is also well known as joint-author of "Pharmacopeia," and as the compiler of the last edition of the "St. Thomas's Hospital Pharmacopeia." At the recent Bristol meeting of the British Pharmaceutical Conference, he was appointed one of the honorary general secretaries, to fill the vacancy caused by the retirement of Mr. F. Ranson.

Raised the Hospital Fees.—Dr. Sheard has instituted a radical reform in connection with the charging of fees for medical attendance to patients attending the Isolation Hospital. Up till some weeks ago those patients who could afford to pay were charged 40c. a day, the same as in other hospitals, but the doctor discovered that this was not working satisfactorily, as many quite able to pay more liberally for their treatment were paying very little. He therefore raised the fee to \$1 a day to patients in public wards, and \$2 a day to patients in private wards, and in diphtheria cases patients must pay for their own antitoxine at the rate of \$1.50 per 1,000 units. Since this rule was put in force the revenue to the hospital has been about \$75 a week, and is much more satisfactory than the other arrangement. When the patients are too poor to pay any fee they must be certified to by the City Relief Officer within one week after they enter the hospital. This the doctor thinks will prevent the city being held up by impostors. Dr. Sheard is considering a plan by which the Isolation Hospital may be made of use educationally to the medical profession of the city and Province. His idea is that a certain number of final year medical students might be allowed to attend the hospital and see the cases. We feel that the Board of Health will not object to such an arrangement. At present, students have no opportunity of becoming acquainted with contagious cases, and become practising physicians sometimes without having seen a case of scarlet fever or diphtheria. The change would result in great benefit to both the profession and the public.

A Memorial to Major Reed.—On August 15th, a meeting was held in Bar Harbor of friends of the late Major Reed, M.D., U.S.A., to whom in a large degree is due the discovery of the mode by which yellow fever has been spread, and the consequent suppression of that dire disease. Representative men were present from different parts of the country, and letters were received from various members of committees already appointed to pro-

mote the collection of a memorial fund in grateful commemoration of Dr. Reed's services. Important suggestions were presented from President Eliot, Dr. W. W. Keen, Professor J. W. Mallet, and others. Dr. Daniel C. Gilman, chairman of a committee appointed by the American Association for the Advancement of Science, presided, and Dr. Stuart Paten acted as Secretary. Among those who took part in the conference were Dr. W. H. Welch, of Baltimore, Dr. Janeway, of New York, Dr. Abbott, of Philadelphia, Dr. Herter, of New York, Dr. Barker, of Chicago, Dr. Putnam, of Buffalo, Dr. Fremont Smith, of Bar Harbor, and Dr. Sajous, of Philadelphia; and besides these medical gentlemen, Bishop Lawrence, of Massachusetts, and Messrs. Morris K. Jesup, President of the New York Chamber of Commerce, John S. Kennedy, President of the Presbyterian Hospital of New York, and William J. Schieffelin, of New York. The following conclusions were reached: that an effort should be made to raise a memorial fund of \$25,000 or more, the income to be given to the widow and daughter of Dr. Reed, and after their decease the principal to be appropriated either for the promotion of researches in Dr. Reed's special field, or to the erection of a memorial in his honor at Washington. Arrangements were made for the publication of circulars explaining this movement, and asking co-operation not only from the medical profession, but from all liberally disposed individuals who appreciate the value of Dr. Reed's services to mankind.—*The Outlook*.

"The Law and the Doctor."—Amid the multiplicity of his daily duties, the physician has but scant time to cultivate more than a passing acquaintance with the collateral branches of his profession: the average practitioner, therefore, knows but little of the legal aspect of his relations to the body politic, or his rights and privileges, or his liabilities and responsibilities to his patients and the community at large. While pursuing "the even tenor" of his professional way, the doctor may suddenly be confronted with a summons and complaint in an action for malpractice, or may be called as an expert witness in a similar suit against a colleague. While it is not our intention to urge the physician to become his own lawyer, we believe he should acquaint himself with the fundamental principles of medical jurisprudence, so that he may be reasonably well prepared to defend his own or his brother physician's rights and privileges on the witness stand. With a view of placing such information at the immediate disposal of the doctor, the Arlington Chemical Co. has arranged to issue, under the title "The Law and the Doctor," two 48-page booklets, which shall present in condensed form and succinct style, an epitome of the essentially important features of (1) "The Civil Liability of the Physician for Malpractice," and (2) "The Physician as a Wit-

ness." These exceedingly practical monographs have been expressly prepared by an eminent member of the New York bar, who is well recognized by the legal profession as an expert in this special branch of practice. The first of these reference text manuals is now ready for distribution, and after a reasonable interval will be followed by the second monograph. Copies may be had by applying to the above company.

A "Doctor's Sign."—The following sign of a quack "doctor" appears in Chattanooga, Tenn.:

DR. C. H.

FAITH HEALER.

Drink 3 glasses of water, wash my hands.	
Blow my breath on him & heal him.	
Cures Spells & Drives out Bad Spirits.	
Diseases of all kind male and female	
Cured & will tell you the cause of sickness.	
Coal and Wood	Lunches of all kinds
sold	and Confectionery.

There are, we are sorry to say, ill-natured persons who speak of the surgeon as "the butcher." Surely this gentleman keeps a veritable "delicatessen" of medicine. But even this simple little idyll has its pathetic side. We learn with regret that several prominent members of the county medical society, engaged in the suppression of illegal practice, were found recently in a state of hysterical melancholia, gazing on the sign and dejectedly wailing in antiphon—

When the enterprising healer's not a healing,	
	not a healing,
When the doctor is'nt "cussing spirits good,"	
	spirits good,
He loves to do a bit of honest dealing,	
	honest dealing,
And drive a thriving trade in coal and wood,	
	coal and wood.

When the curist ain't a curing of a brother,	
	of a brother,
He loves to deal in candy, cake and bun,	
	cake and bun,
Taking one consideration with another,	
	with another,
A physician's lot is not a happy one,	
	happy one.

(Ensemble) Oh,	
When quackery suppression's to be done,	
	to be done,
A physician's lot is not a happy one,	
(basso profundo)	happy one.

—New York Medical Journal.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY:

DEAR SIR,—My attention has been drawn to a paragraph in the organ of the anti-vaccinationists, published in London, England, containing a report from *The Toronto News*, of a meeting at Toronto Junction, at which one Dr. Richardson had said that he had formerly believed in vaccination, but later experience had led him to change his opinion.

I immediately wrote to the *News*, stating that it was to be regretted that there was no indication which of the many Drs. Richardson who reside in Toronto or its vicinity it was who had expressed this opinion. As to myself, I utterly repudiated it. As reason for my confidence in the protective power of vaccination, I gave my experience of fifty-six years, during the first half of which I attended numerous cases of small-pox at private residences, before there was any isolation hospital or any effective antiseptic, without the disease spreading in a single case to other members of the families, or to the attendants, or to the members of my own large family.

The crucial test would be for a doctor, who had never been vaccinated or had small-pox, to attend daily in immediate contact with malignant small-pox, perform all the duties necessary, and return daily to a large family, none of whom were protected by vaccination or previous attack.

I doubt very much whether any one of those who talk so glibly against vaccination, would be courageous enough to apply such a test.

I concluded by expressing my firm belief that universal, typical vaccination, repeated until it ceased to take effect, would cause small-pox to utterly disappear from the face of the earth. I take this opportunity, at the risk of being called an old fogey, to express the doubt whether we have gained by discarding human, and resorting to bovine lymph. It was undoubtedly true that there was a degree of risk lest lymph might be used which was contaminated by other diseases, but, with due care, and complete knowledge of the source of the vaccine, the risk was reduced to a minimum. During my experience in a large family practice I never saw any untoward result, except in one case where slight erysipelas followed, caused, no doubt, by having used a perfectly new lancet, without using the precautions which antiseptics has since shown to be necessary.

Vaccination, then, was performed with the utmost care. In a large family practice one had abundant opportunity of selecting proper subjects from which to preserve lymph. The health of the child, and of its parents, was well known. No lymph was taken from a vesicle which had not seen a perfectly typical course as to time, and did not present the typical appearance, nor had been accompanied or followed by suppurative or other abnormal processes.

The lymph was used either direct from arm to arm, on points, or more frequently by means of the dried vesicle, which was gently raised, enveloped in pure white wax, covered with foil. Kept in this way, it would retain its efficacy for a long time.

It may interest you to learn that the use of capillary tubes for vaccine virus, is not new. I have still the empty tubes which were used by me over forty years ago. Revaccination was always tried wherever there was any special risk of exposure. Whenever I had to attend a case of small-pox, I vaccinated myself again, and all my family, but it never took except once, in the case of one of my children. When the use of bovine virus became imperative, the result for a long time was, in my opinion, very unsatisfactory. It could only be obtained from some one of the dozens of producers. It had to be used entirely on trust. My opportunities of judging as to its effects were limited, but what I did often see, filled me with amazement and regret.

The period of incubation was very irregular, generally much prolonged, the vesicles were often huge discolored blebs, the surrounding inflammation was excessive, and large, unhealthy ulcers were left which took a long time in healing.

The typical pearl or rose-leaf was rarely, if ever, seen. Whether this was due to ignorance, or carelessness, or whether the virus had to undergo many transmissions before it reached the Jennerian standard, which I think likely, I am not able to decide. Whether it was efficacious as a prophylactic or not, it assuredly was not free from obnoxious germs, and there are grounds for believing that some of it contained those of tetanus. During Jenner's life, vaccination ran great risks of being diseased, in consequence of the use of imperfect, or contaminated, virus, and I fear much of the antagonism of late years has arisen from the same cause.

I am glad to say that, during the past four or five years, I have seen virus furnished by large reliable establishments which, in every respect, complies with the Jennerian standard, and the future promises continuance. To ensure this, power should be vested in some duly qualified person, or board, with absolute authority to prohibit the sale of vaccine virus which, in any way, fails to reach the proper standard.

JAMES H. RICHARDSON.

36 St. Joseph Street, Toronto, September 14th, 1903.

The Physician's Library.

BOOK REVIEWS.

Text-Book of Anatomy. Edited by D. J. CUNNINGHAM, F.R.S., M.D. (Edin. et Dublin), D.Sc., LL.D. (Glasgow et St. Andrews), D.C.L. (Oxon.), Professor of Anatomy and Chirurgery, Trinity College, Dublin. Illustrated with 824 wood engravings from original drawings, many printed in colors. New York: Wm. Wood & Co. 1902 Canadian agents, Chandler & Massey Limited, Toronto and Montreal.

That the author is an old pupil of that master anatomist, Sir William Turner, of Edinburgh, almost necessarily places upon his work the stamp of professional approval and general acceptance in the world of science. On the fly-leaf appears the following dedicatory notice: "To Sir William Turner, K.C.B., F.R.S., M.B., LL.D., D.C.L., D.Sc. in recognition of his eminence as an anatomist, and his influence as a teacher, this volume is dedicated by those of his former pupils and assistants, who have contributed to its pages."

All of the contributors, with one exception, are ex-assistants of Sir William Turner. They include such men as Dr. Ambrose Birmingham, now Professor of Anatomy, Catholic University School of Medicine, Dublin; Dr. D. J. Cunningham, the author; Dr. A. F. Dixon, Professor of Anatomy, University College, Cardiff; Dr. David Hepburn, Lecturer on Regional Anatomy, University of Edinburgh; Dr. Robt. Howden, Professor of Anatomy, University of Durham; Dr. A. M. Paterson, Professor of Anatomy, University College, Liverpool; Dr. Arthur Robinson, Professor of Anatomy, King's College, London; Dr. H. J. Stiles, Surgeon to the Royal Hospital for Sick Children, Edinburgh; Dr. Arthur Thomson, Professor of Human Anatomy, University of Oxford; and Dr. A. H. Young, Professor of Anatomy, Owen's College, Manchester.

The work is divided into the following sections: (1) General Embryology; (2) Osteology; (3) Articulations, or Joints; (4) Muscular System; (5) Nervous System; (6) Organs of Sense and the Integument; (7) Vascular System; (8) Respiratory System; (9) Digestive System; (10) Urogenital System; (11) Ductless Glands; and (12) Surface and Surgical Anatomy. Of

the 824 illustrations throughout the book, there is not one that cannot be termed excellent. The colored plates deserve especial mention, and have been executed with every possible attention to anatomical detail.

The book covers about 1250 pages of text, and the type is large and distinct, a most important item in a work for constant reference.

The subject of the anatomy of the human body has been thoroughly covered in Dr. Cunningham's text-book, a work that is at least the equal of, if not in some respects superior to, even a Gray or a Morris.

W. A. Y.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedies, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest to students and practitioners by leading members of the medical profession throughout the world. Edited by A. O. J. KELLY, A.M., M.D., Philadelphia, with the collaboration of Drs. W. Osler, J. H. Musser, Jas. Stewart, John B. Murphy, T. M. Rotch, John G. Clark, James J. Walsh, J. W. Ballantyne, John Harold, Edmund Landolt, Richard Kretz, with correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels, and Carlsbad. Vol. II., thirteenth series. 1903. Philadelphia: J. B. Lippincott Company. Canadian Agent: Chas Roberts, Montreal.

The first sixty-five pages of this popular book are devoted to articles by various writers on the summer diarrheas of children. There are six articles, all written by first-class men, and all of a most interesting character. Altogether they comprise not only a history of the condition, but the up-to-date statistics, pathology, treatment, and prevention. These alone would seem to be sufficient to recommend this volume to the busy practitioner, but there are many other and valuable papers in it which still more make it necessary that every medical man should have it in his library. The next fifty-eight pages are devoted to diseases of the pancreas, summed up in two papers, one by Eugene L. Opie, on "Symptoms and Diseases of the Pancreas," and the other by John B. Deaver and George P. Muller, on the "Diagnosis and Surgical Treatment of Diseases of the Pancreas." These are very valuable papers just now, coming as they do at a time when disease of this organ is attracting so much attention.

There are a number of papers on treatment, on medicine, surgery, pediatrics, and on the eye. Among the first there is an article on Trunccek's serum in arterio sclerosis, by Leopold Levy,

which deserves particular mention. In pediatries, there is a paper by Dr. W. F. Hamilton, on cirrhosis of the liver in children, with notes on three cases. Altogether the volume is one which, apart from its excessively readable character, contains material of the greatest possible value to every practitioner. A. J. J.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries, and Improvements in the Medical and Surgical Sciences. Edited by ROBERT AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, of Philadelphia, etc., assisted by H. R. M. LANDIS, M.D., Assistant Physician to the Out-patient Medical Department of the Jefferson Medical College Hospital. Volume II., June, 1903, Surgery of the Abdomen, including Hernia, Gynecology, Disease of the Blood and Ductless Glands, the Hemorrhagic Diseases, Metabolic Diseases, Ophthalmology. Philadelphia and New York: Lea Bros & Co. 1903.

Volume II. of *Progressive Medicine* for the Current Year has amongst its contributors such well-known medical litterateurs as Drs. F. M. Crandall, of the N. Y. Polyclinic; W. B. Coley, of the College of Physicians and Surgeons, New York; Wm. Ewart, of St. George's Hospital; W. S. Gottheil, of the N. Y. School of Clinical Medicine; Albert B. Brubaker, of Jefferson Medical College; A. L. Turner, of Edinburgh; J. C. Hemmeter, of the University of Maryland, and Alfred Stengel, of the University of Pennsylvania. The volume is divided into four sections: Surgery of the Abdomen, including (1) Hernia, by Dr. W. B. Coley; (2) Gynecology, Dr. J. G. Clark; (3) Diseases of the Blood and Ductless Glands, the Hemorrhagic Diseases, and Metabolic Diseases, by Dr. Alfred Stengel; (4) Ophthalmology, by Dr. Edward Jackson. Volume II. for 1903 is, owing to its contents, perhaps, more suitable for the various specialists, and not as valuable as some preceding volumes have been to the general practitioner. It is, however, as a volume, fully up to any other of the series.

Aphorisms, Definitions, Reflections and Paradoxes: Medical, Surgical and Dietetic. By A. RABAGLIATI, M.A., M.D., F.R.C.S.Ed, late President of Leeds and West Riding Medico-Chirurgical Society; Honorary Gynecologist, late Senior Honorary Surgeon, Bradford Royal Infirmary; Consulting Surgeon, Bradford Children's Hospital, and St. Catherine's Home for Incurables. London: Bailliere, Tindall & Cox.

The author records his peculiar philosophy in a series of observations classified in the manner suggested by the title of the book. His philosophy consists mainly in the belief that most, if not all, the ills that flesh is heir to, come from indiscretion in

diet. He would preach the doctrine of monositeism as a safeguard against inroads of disease, or as a means of reducing the organism to a normal condition of health. In a volume of 282 pages, Dr. Rabagliati makes many statements which convince one that there is much to be said in support of his theory, but we do not consider that the conditions governing health and disease can be controlled solely by regulation of the diet.

Some of the teachings of the author are extremely interesting if not comforting; such as the following paragraph:

"458. Persons generally think that a fast continued for four, five, or six weeks would kill them; but it would not. Recurring attacks of illness, however, always tend to culminate in some more serious or fatal illness. Even if a-siteism for six weeks did prove fatal (which, however, it does not), the question is whether it would be preferable, if one must die, to die of fasting, or to die of disease. The latter is certainly much more painful."

There are many suggestive statements made by the author, which are undoubtedly the outcome of shrewd observation, and will be found both entertaining and instructive. There is much of good common sense to be found in the views recorded, and this makes the work of practical utility. We would therefore recommend the book to our readers, and we feel assured that everyone who reads it will find it well worth careful study. A. P.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries, and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; one-time Clinical Professor of Diseases of Children in the University of Pennsylvania; Member of the Association of American Physicians, etc.; assisted by H. R. M. LANDIS, M.D., Assistant Physician to the Out-Patient Medical Department of the Jefferson Medical College Hospital. Volume III., September, 1903—Diseases of the Thorax and Its Viscera, including the Heart, Lungs, and Blood-Vessels; Dermatology and Syphilis; Diseases of the Nervous System; Obstetrics. Philadelphia and New York: Lea Bros. & Co. 1903.

Volume III. of this year's "Progressive Medicine" has a large staff of contributors, all men who stand quite high in the world of medical literature. They include such men as Dr. W. B. Coley, of New York; Dr. W. Ewart, of St. George's Hospital, London; Dr. W. S. Gottheil, Professor of Dermatology, N. Y. School of Clinical Medicine; Dr. A. P. Brubaker, of Jefferson Medical School; Dr. J. C. Hemmeter, of Baltimore; Dr. Alfred

Stengel, of the University of Pennsylvania; and Dr. A. L. Turner, of Edinburgh.

The most interesting section of Vol. III. is that from the pen of Dr. Gottheil, on "Skin Diseases and Syphilis." It covers seventy pages, and is well worthy of careful perusal. In dealing with the treatment of syphilis, the author gives in detail Leredde's method of injection, and shows that it is undoubtedly the method of the future, and the only means of introducing a definite amount of mercury into the system, with a definite result. Leredde advocates large doses, and says that the occurrence of stomatitis, though it should be avoided, depends largely upon the care that is given to the mouth. Tommasoli also energetically advocates the early and intense injection treatment. Von Düring uses salicylate of mercury for hypodermic injection, and though he has given 100,000 injections, had embolism but twice.

A *System of Physiologic Therapeutics*, a practical exposition of the methods, other than drug-giving, useful for the prevention of disease, and in the treatment of the sick, edited by SOLOMON SOLIS COHEN, A.M., M.D., Senior Assistant Professor of Clinical Medicine in Jefferson Medical College; Physician to Jefferson Medical College Hospital, to the Philadelphia Hospital, and to the Rush Hospital for Consumption, etc. Vol. X., Pneumo-therapy, including aerotherapy and inhalation methods, and Therapy, by DR. PAUL LOUIS TISSIER, one-time *interne* of the Paris Hospitals, Assistant Consulting Physician to Laennec and Lariboisière Hospitals, Chief of Clinic in the Faculty of Medicine of the University of Paris. Illustrated. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Canadian Agents: Chandler & Massey Limited, Toronto and Montreal.

Volume X. of this series is a particularly good one, and is a treatise on Pneumo and Aero Therapy and their development, with also the conclusions come to by those who have experimented as "to the effects and therapeutic application of condensed air and rarefied air—whether in caissons or pneumatic chambers, in balloon voyages or mountain ascensions, during sojourn at altitudes, or when various forms of differential apparatus are utilized." Part II. of this volume is devoted to "Inhalation Methods," giving the author's ideas of the therapeutic value of "the addition to air and to watery vapor of medicinal substances." It takes up in detail (1) the medicaments suitable for use as vapors; (2) the inhalation of fumes and vapors, with a discussion as to the various apparatus manufactured for the purpose; (3) the inhalation of gases; (4) the atomization of liquids and the inhalation of mineral waters at their source, and (5) the inhalation and insufflation of

powders (spirotherapy). Volume X. is thoroughly practical and gives a fund of information, which we don't think would be easily procurable elsewhere.

A Text-Book of Modern Materia Medica and Therapeutics. By A. A. STEVENS, A.M., M.D., Lecturer on Physical Diagnosis in the University of Pennsylvania; Physician to the Episcopal and St. Agnes Hospitals, Philadelphia. Third edition, greatly enlarged, rewritten and reset. Handsome octavo of 663 pages. W. B. Saunders & Co. 1903. Cloth, \$3.60 net. Canadian Agents: J. A. Carveth & Co., 413-415 Parliament Street, Toronto.

In getting the third edition of his text-book ready, Dr. Stevens has not simply revised it here and there, reproducing by far the larger part just as it was in the previous edition, but he has gone to work and entirely rewritten it, and now presents the profession with a new volume on new lines. He deserves congratulation on the result of his labors, as he has placed on the market a volume that is in many respects ahead of any other dealing with the same branch of medicine. It has been a habit in the past on the part of authors of works on materia medica and therapeutics to consider drugs in their alphabetical order; but Dr. Stevens, in the third edition of his admirable text-book, has wisely classified them according to their pharmacologic action. There are many who will criticise this method adversely; but we feel that it is a wise departure, in that it assists the reader to associate in his mind facts which otherwise he might have difficulty in remembering and putting into practice when treating disease. The last 125 pages of the book are devoted to applied therapeutics, and to the active practitioner, this section will be found exceedingly valuable and more than usually practical.

A. J. H.

A Text-book of Chemistry, for Students of Medicine, Pharmacy, and Dentistry. By EDWARD CURTIS HILL, M.S., M.D., Medical Analyst and Microscopist; Professor of Chemistry and Metallurgy in the Colorado College of Dental Surgery; Professor of Chemistry and Toxicology in the Denver and Gross College of Medicine, University of Denver. With 78 illustrations, including 9 full-page half-tone plates. Pages xii-523 crown octavo. Extra cloth, \$3, net, delivered. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

The author has taken a wide range of his subject. The first three hundred pages are devoted to physics, inorganic, organic, and analytic chemistry. The remaining two hundred deal with physiological, pathological, clinical, and sanitary chemistry and

toxicology. It is built up from lectures delivered in medical and dental schools during ten years. The author has gathered his material from many authorities, and has presented it in a very attractive manner. Facts follow each other so naturally, and formulas are used so freely, that drudgery is eliminated. It is written in a simple, concise, and interesting style, and is a book from which students could easily obtain a thorough grasp of the subject.

A. E.

Practical Handbook of the Pathology of the Skin. An Introduction to the Histology, Pathology, and Bacteriology of the Skin, with Special Reference to Technique. By J. M. H. MACLEOD, M.A., M.D., M.R.C.P., Assistant in the Dermatological Department, Charing Cross Hospital; Physician to the Skin Department, Victoria Hospital for Children. With eight colored and thirty-two black and white plates. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Canadian agents: Chandler & Massey Limited, Toronto and Montreal.

This book comes to us as the outcome of many years of research and of accumulated knowledge. It is replete with the finer points in the histology of the skin, its pathological changes, its bacteriological flora, and technical methods applicable to its study. On these lines it is welcomed by us as a pioneer; to students of dermatology and clinicians it will fill a long-felt want. We notice that the skin-lesions have been considered on an anatomico-pathological basis, thus avoiding much of the confusion which at present exists in regard to the nomenclature of dermatology. The illustrations are accurate, being nearly all drawings from Dr. MacLeod's own specimens.

W. H. P.

Diseases of the Ear. A Text-book for Practitioners and Students of Medicine. By EDWARD BRADFORD DENCH, Ph.B., M.D., Professor of Diseases of the Ear in the University and Bellevue Hospital Medical College; Aural Surgeon, New York Eye and Ear Infirmary; Consulting Otologist to St. Luke's Hospital. Third edition, revised and enlarged. New York and London: D. Appleton & Company. 1903.

Of American text-books on the ear, Dench is perhaps the best known. For the aurist and the general practitioner as a book of reference it holds a place of its own. While one may not agree with Dench in all his views as to otological operations, still one must confess that he has given an impartial *resume* of current opinion on the subject. The greatest advance in otology has been the recognition of the close relationship of chronic suppuration

of the ear to diseased conditions of the brain and its coverings. This has necessitated the re-writing of the sections on chronic middle ear suppuration, sinus thrombosis, and brain abscess. The descriptions of these operations for the relief of these conditions are very complete, and illustrated by new plates made from the author's own sections. Altogether this edition is a distinct improvement on the last, and will add to the reputation of the author.

J. M.

A Pharmacopeia, or Diseases of the Skin. Containing concise formulæ for baths, mixtures, ointments, lotions, caustics; rules of diet, classification and therapeutical index. Edited by JAMES STARTIN, Senior Surgeon to the London Skin Hospital, Fitzroy Square. Fifth edition. Bristol: John Wright & Co. London: Simpkin & Co., Limited. 1903.

In this "vest-pocket" edition on skin pharmacopeia, we certainly have knowledge condensed, for within 64 diminutive pages we find numerous useful formulæ. Subjoined to each is a note of the uses to which it is practically applied. Many of them are being constantly used in the London Skin Hospital, Fitzroy Square. A section is devoted to rules on diet, so important in skin troubles. A condensed classification and a therapeutic index conclude what will prove handy to those too busy for deeper research.

W. N. P.

A Handbook of the Diseases of the Eye and Their Treatment. By HENRY R. SWANZY, A.M., M.B., F.R.C.S.I. Eighth edition. London: H. K. Lewis. 1903.

This favorite handbook has reached its eighth edition. Its popularity with students, for whom it is chiefly intended, is as great as ever. It is received with growing favor by practitioners who have once perused it, because of its readability, and the soundness of its teaching. The chief additions are descriptions of some rarer affections of the conjunctiva and cornea, and accounts of some lately devised operations, such as Maxwell's operation for shrunken socket. A very interesting paragraph is that on recurrent alvasion of the cornea, or traumatic keratalgia.

J. M.

WE have to acknowledge the receipt of the Report of the Wellcome Physiological Research Laboratories. It contains some very valuable information about the various serums, their manufacture, standardization, uses and results, and will be found very useful to those interested in the subject. Walter Dowson, A.M., M.D., is the director.

W. J. W.

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NO. 5.

Original Contributions.

ADDRESS ON MEDICAL SCIENCE.*

BY CHARLES SCOTT SHERRINGTON, M.D.,
Professor of Physiology, University of Liverpool.

BELIEVE me, it is a difficult thing for a stranger, even at your invitation, to address you on an occasion like the present. So many significant events crowd in upon him, and time for reflection is needed to weld into a connected whole the impression he would wish to offer to you. Not that the growth and doings of this University have not been followed and watched with interest by us in the Old Country. On the contrary, your activity has been felt, not only as a matter of mutual congratulation, but as a spur to arouse us to effort in our own similar pursuit of educational aims. But the stranger coming among you necessarily feels the shortcomings of his acquaintance with the details of these academic enterprises you have taken in hand. One advantage, however, is his. His view, gained from a distance, necessarily has freedom and truth of perspective that may give it a value in your eyes.

Some things lose by perspective. Some things, large when at close to hand, dwindle when viewed from afar. Not so Canada. The perspective given by the width of the Atlantic is but an appropriate setting across which to view her greatness and her far-reaching activity. And this event, this academic celebration, this *dies festus*, in your University to-day, retains from afar off all the significance of a great event. It loses no tittle of its dignity and import when viewed across ocean from the crowded

* Delivered at the official opening of the New Medical Building of the University of Toronto, October 1st, 1903.

turrets of the older Cambridge, or the hoary spires of Oxford. It shines, I assure you, like a beacon to the new University whose buildings are as yet unfinished on the hill above the port of Liverpool.

Coming from a region where history is long and the land little, to this where written history is short and the expanse of land incomparably great, one realizes how relative is size. And in regard to the event of to-day the largeness of this country rises in my thought not as a matter of mileage, but—that with you more than with us in the Old Country, the size of to-morrow is vaster than the size of to-day. Each step of progress here, more than with us, has to be measured by its ample consequences in a more rapidly widening horizon of the morrow. These new laboratories have a field already demanding them, and a still larger lies before them in an immediate and historic future.

Biology is the study of life in regard to growth and organization. Every medical man is a biologist, and as a biologist it may be but natural if I regard to-day's event from a biological standpoint, and the community as an organism, and the university as a living organ, essential to the healthy life of the community.

MEDICAL SCIENCE.

Science—especially medical science—is growing in importance to the community. We must have organization in science as in industry. This University to-day makes provisions of first-rate importance for the organization of medical and allied sciences in the region which centres here. Capacity to rear and support men constitutes the extent of a country, and population is the biological measure of the social organism. The ceaseless energy of the race has begun to plant a great population in this land. Growth, great and rapid, is inevitably before it. The growth of nations as of individuals requires the vigilance of guiding hands. Growth, for it to take its course rightly towards perfection, requires that provision for the security and expansion of the liberal arts and sciences forerun rather than halt behind the actual requirement of the hour. Not only for their direct utilitarian service. They form a whetstone for man's most universal tool, his intellect; also a discipline for character in the pursuit of truth for its own sake. Scientific truth, when found, has often proved unpalatable to man—as when it dethroned him from his fancied seat at the centre of the whole perceptible universe, a universe which he had imagined simply subservient to his needs—or again, as when it taught him that instead of being a creature altogether apart from brute creation, there are flesh and blood bonds between himself and them. Regardless of its cost to his cherished fancies, man strives for scientific truth. And, as the old Greeks said, this

purpose puts him further from the brutes and nearer to the gods.

In nurturing science, I would urge that a community cultivates more than mere utility. And even with regard to mere utility, as the fields of knowledge fall ripe under the ceaseless husbandry of the world's thought, those who would join in the great reaping, and not only glean where others reaped before them, must cultivate for themselves. To do this requires more than the devotion of individuals. It requires the intelligent co-operation of whole groups of individuals. Organized scientific inquiry becomes in advanced countries a conscious aim of the community as a community.

THE VARIOUS WORKERS.

That society may draw due benefit from wells of natural knowledge, three kinds of workers have to stand side by side. First, the investigator, who, pursuing truth, extends discovery, with little or no reference to practical ends. He constitutes the fountain-head of the knowledge that is for distribution. Other hands may reap the harvest, but his sets and rears the seed.

After the investigator comes the teacher. To him it belongs to diffuse the knowledge won. This honorable and difficult task receives its best reward in seeing the small spiritual beginnings of the pupil widen out into the spiritual beginnings of the master. Thirdly, there is the applier of natural knowledge. His part consists in making scientific knowledge directly serve practical needs. It is this work which, to the popular idea, often represents the whole of science, or all of it that is commonly termed "useful." The practical results of this work are often astounding to those ignorant of the steps by which they have been reached. The greatest of these steps, however, is usually the first one, made in the laboratory of the investigator. These three co-workers are co-equal in the priesthood. Science and the applications of science are one growth, united together even as the fruit and the tree. The proper hearthstone round which the community should group these laborers, laboring for a common end, is the University. There the sacred flame of learning is fed from many sides by many hands.

VALUE OF SCIENCE.

It is sometimes said that pursuit of science renders a man deaf to the appeals of practical life—that it tends to withdraw him from the everyday interests of the people. That I do not believe of any science, certainly not of biology and the medical sciences. Why, from their very outset these subjects draw the mind toward study of an organization the most complex and the most perfect it can examine. The ancient simile that our old

school classic, Livy, drew between the human body and the body politic, the State, has not lost but won significance as the centuries have run. The achievement of the microscope has been the discovery that living things, whether plant or animal—all living things of more than minutest size—are commonwealths of individually living units. These cells, as they are called, are living stones that build the house of life. In that house each stone is a self-centred individually living microcosm individually born, breathing for itself, feeding itself, consuming its own substance in its living, and capable of and destined for an individual death. Each cell lives by exchanging material with the world surrounding it. In other words, its bulk depends upon its surface. Hence surface increasing as the square, and volume, as the cube, cell-size, is circumscribed by tiny limits—microscopic limits. Had the dependence been greater than it is, and the average size of the cell less, and too small for resolution and discovery by the microscopes of seventy years ago, it is hard to imagine where biology would stand to-day. For two generations every biologist has been accustomed to think in terms of the cell-theory. Every shred of the body he knows as an intricate interlacement, embodying co-operation and mutual support of associate thousands of individually existent cells. Division of labor has gone on, and with it differentiation of function; while this group of cells combines with its own inner life some special function subservient to the needs of the great commonwealth, as a whole, another group is specialized for another duty again subservient to the general needs. Each organism, however complex, each one of ourselves here, is built up of living myriads of cells. Each such organism consisted at outset but of a single cell, and from that in his life's growth have arisen the countless myriads composing him to-day. The blood relationship is close between all the cells of each one individual body. The cells of our nerves, or our muscles, of our time-hardened bones, are all blood relations through one common ancestor. Yet, so far has specialization of these unit lives gone on, yet so far does function reflect itself in microscopic form, that there is greater likeness between my nerve cells and the nerve cells of a fish, than between my nerve cells and my muscle cells—despite the blood relationship of these latter. And in the commonwealth of cells that constitutes each one of us, goes forward day long, night long, as in the body politic, the birth of new units to replace the ones outworn, the subordination of many individual purposes to one, the sacrifice and destruction of the individual life for the benefit of many.

Trained in study of such an organism, surely the biologist and the medical man will be the last to underrate the importance of organization to the community for the common weal. There-

fore, I am rejoiced, but I am not surprised, that it is your faculty of medicine which to-day, in its public-spiritedness, erects and installs these fine laboratories, this potent addition to the organization of your community, for its activities in medicine and biological science. I would also, as a friend among you, offer my congratulations on the consolidation of your two schools of medicine. Union means not only greater strength, but the more effective application of strength. I need not to this assembly extol medicine. Many of her votaries are here; I venture to count myself as one. But to-day the relation toward her of education is a matter on which our minds are naturally set. Am I wrong if in regard to this it rises saliently to me that from the educational standpoint medicine, like Janus of old, in a good sense, bears a double face? On the one hand, she is an empiric. She has learned to cure by what the comparative psychologist calls the "method of trial and error." Conquests over sickness acquired purely as result of experience, without help either from *a priori* or from inductive reasoning. And great and glorious is the roll of her achievement on these lines. Of her humanitarian triumphs probably still—certainly a generation ago—the greater share is assignable to this part. The use of quinine in malaria, the curative effects of the iodides and various metals, and the discovery of chloroform and ether as anesthetics, these and the names of a long line of famous physicians from the Renaissance down to some as justly famous as the past, and with us now to-day, suffice to certify the inestimable gifts that medicine as empiric has given to mankind in his suffering. This face of medicine well may wear a garland.

MEDICINE A SCIENCE.

In her other aspect, medicine is not an empiric, but a scientist. Who will refute me if I assert that medicine is as well an art as a science? Somewhere it is said that woman is the last thing man will ever civilize. So the scientific aspect, the male face of two-visaged medicine, thinks that of female face, the empiric, with whom his lot is linked. He feels sometimes that his other half is the last thing science will ever render wholly rational. By dint of patient toil he improves her practice by showing her a reason now and then. No sooner that than she is off on a fresh flight into the inexplicable, and he must cudgel his brains anew to find her a fresh logical position.

The feminine, ever youthful, trait in medicine has to the student an undying charm. But on the whole, the countenance of medicine has of recent years, for the student, become masculinely severe. This head of medicine has indeed become the larger. Hydrocephalic in appearance though it may be, it is filled, not with water, but with reasoned facts. The development proceeds

in the main from certain data acquired in the century just passed. For instance, the chemist, in discovering that all the million-sided chemical diversity of the perceptible universe is composed from a few—some seventy—substances, therefore called elemental, discovered also that living matter, instead of containing elements different from and subtler than those of the dead world, consists of just a few of those very same ones. Further, the doctrine of the indestructibility of matter was demonstrated in a new form, namely, as the indestructibility of energy, and the convertibility of any one form of energy into other forms. Thus dead and living matter become united as subject material for study. It became really possible to consider the living body as a chemical and physical machine, a machine to which the laws of chemistry and physics can be applied.

But this scientific progress in medicine, fruitful of benefit to the community, lays on the community a burden of obligation. The empirical part of medicine is at once the most easy and the most difficult thing to teach. The preparation for learning it requires but little training in other subjects. Its facts lean on nothing but themselves.

HISTORICAL SKETCH.

With the scientific part of medicine it is different. That is based upon initiatory studies. Medicine, historically traced, we find first drawing help from the simplest and nearest at hand of these adjuvant studies. First she bent to the study of the gross form of the parts and organs of the body. The gross form of these is significant chiefly where they are machinery for application of mechanical powers. The greater part of the corporeal machinery is, however, not destined for such work, but has its purpose in processes chemical, thermal, and electrical, to which—marvellous appendage—mentality is adjunct. Medicine in the course of the seventeenth and eighteenth centuries sucked dry for the most part what the study of the gross form of the body's parts could yield her. She then turned to study of microscopic form—examined what Bichat first named the tissues, the fabric of the body. In so doing, she came upon a great generalization, the cell-doctrine, discovering an essential and visible similarity of microscopic structure in all that has life, differentiating it from all which has not life.

But even before the advent of the cell theory, medicine had begun to ask of chemistry what it could give her. With the discovery of oxygen and of the nature of combustion the links between biology and chemistry began to be tightly drawn. The young Oxford physician, Mayou, had performed the fundamental experiments on respiration and had discovered oxygen more than

a century before Priestley and Lavoisier, but the time was not ripe until the stupendous work of Lavoisier had founded modern chemistry. The cell-theory was from the first not only morphological, but physiological. It meant for the application of chemistry to biology that the chemistry of the body or one of its organs was a chemistry resultant from a thousand tiny living furnaces, individual seats of oxidation, deoxidation, polymerization, hydrolysis, and what not.

Not only that, but the living laboratory of the cell itself manufactures even the medium in which the cells themselves exist: the saps and juices of the body. And we are beginning to know, thanks to pathology, that every species of animal produces an internal medium specific to itself. Further, your distinguished physiologist here, Professor Macallum, who has so revealed the distribution of the chemical elements within the cell, tells us that the internal medium which the cells of even the highest animal forms produce as appropriate for themselves, still approximates in its salts to the water of the ancient geologic seas in which their ancestry arose, and still reveal in fact the composition of that ancient ocean. In that respect these living cells, with all their influx of change, have been more durable and constant even than the ocean itself. The contrast brings home to us a deep distinction between dead matter and living—the latter a moving equilibrium, gaining stability from the very motion of itself.

The bond between Schwann and Pasteur has opened a new perspective, and chemistry and medicine were drawn still tighter by their discoveries concerning those subtle influences named "ferments." Pathology, the study of these processes of the body in disease, even more than physiology, as yet has drawn help from this part of modern chemistry. If the processes of health are in fact the resultant of the due co-operation of ten million little foci of healthy chemical action in the body, the processes of disease are similarly divisible, and have to be traced to the unhealthiness of certain of these minute centres of activity. How extreme is the importance of chemistry to modern medicine no single statement can perhaps emphasize so well as this—that is, I believe, acknowledged on all hands—that in virtue of his chemistry, a chemist, Louis Pasteur, during the latter half of last century, was able to do more to alleviate the diseases of mankind and animals than any single physician of his time.

APPEALS TO PHYSICIST.

Also medicine has made appeal to the physicist, and from him she has got understanding of the body's heat, the basis of the knowledge of fever: she has learned the intricacies of the mechanism of the eye and refined methods of examining that organ and

of remedying many of its defects; the laws that govern the circulation of the blood, and the subtlest means of detecting the forces liberated in the working of the nervous system. In some cases, as sciences grow, their discoveries seem to sunder them the further one from another. To-day we find physics and chemistry converging and conjoining within a field of physical chemistry. It early became convenient to have a specific name for living material, wherever found. The name given was Protoplasm. It might have been better to call it x or y , so far was it in many respects an unknown quantity. Instead of looking forward to this material as a chemical entity, we incline now to regard it rather as a field for chemical action, satisfying certain particular conditions. Probably discoveries regarding these conditions will fall to the physical chemist, perhaps in a future very near at hand. Probably such discoveries will be among the most valuable that medicine has yet received from any source.

I have said enough to remind us how interlocked with science medicine has become. She is applying sciences to her own problems, and they form a vast capital fund from which she can draw wealth. To give instruction in this part of medicine, to turn out men trained in it, is now one of the duties of a medical school. The earnest student has a right to expect such training from his *Alma Mater*. But for it the requirements are importantly different from those that suffice as an introduction to empiric medicine. In the first place, as Pasteur said, we cannot have the fruit without the tree. For scientific medicine the student must, perforce, be thoroughly trained in his sciences before he can really grasp instruction or truly profit from his medical teaching. One of the aims of his instruction in empirical medicine is to teach him to observe for himself, so in his instruction in scientific medicine, one of its aims is to enable him to apply science for himself. How small a fraction of all the realities of medical practice can be met in the few years of preparation of the student in the clinic as he passes through it in his school career. His teacher knows that well, and uses the cases as types whereby the principles of medicine can be fixed as a beginning. The rest must be accomplished by the man himself, as his life's work. The more necessary that the man go forth from his school equipped not only with the present applications of science to disease, but so possessed of the root principles of the sciences adjunct to medicine, that he may grasp and intelligently use the further developments of scientific medicine after he is weaned from his instructors and the school. That is the way to obtain enlightened progress in professional practice. What truer safeguard can a man have, alone it may be, and isolated from the centres of knowledge—what truer safeguard can he have against all the pseudo-scientific quackeries

of the day, than some real knowledge of the principles of the sciences, along whose lines the discoveries of medicine must develop?

BURDEN ON TEACHERS.

Therefore it is that the burden of obligation falls heavily nowadays upon the teaching resources of every Faculty of Medicine worthy of the name. There is, in the first place, the burden of increased intellectual labor. For the learner and the teacher this is true. To seize the proffered assistance of these great and complex sciences is not always easy. These studies are more difficult than those that were needed once, and they take longer to acquire. The mere instrumentarium of modern chemistry and physics, as applied to medicine, and of physiology and pathology, and bacteriology and of hygiene, of itself suffices to bring conviction of the increased difficulty and longer training due for these studies now preparatory to medicine.

Further, these initiatory studies have become vastly more costly than was all that formerly was required. Experts have to be found who can devote themselves heart and soul and undividedly to their particular subject. Laboratories have to be erected and equipped, and on a scale that makes them a distinct feature of the modern world. Those that we see now here are models of their kind; wise foresight has planned them; public-spirited enterprise has constructed them. Nor does the achievement end with their erection. The laboratories and their equipment are but the factory and the plant; both fail in their purpose if they halt for sustenance. And beyond that the likeness does not go. The factory, once started, if it be wanted, can expect to pay, to support itself. Not so the laboratory. The laboratory is both a school of instruction and a school of thought. Well, no higher instruction can be expected unaided to pay the expenses it involves; it can only do so at the expense of those who come to learn, and that is to put its teaching beyond all but the wealthier few. And the instruction is costly, for it has to be practical. And another source of expense is that the laboratory has not only to distribute knowledge, but to manufacture it. The duties of a university do not begin and end with the disciplinary and didactic. Besides schools of instruction, they must be schools of thought. To be this latter, the laboratory must pursue research. Even for the welfare of the class-teaching this is essential. Instructive lectures may be given by men of ability, the whole of whose knowledge is second-hand, but it is doubtful whether the real life of science can be fully felt and communicated by one who has not himself learnt by direct inquiry from nature. Nothing so augments the teacher's power of impressive and incisive teaching of

a subject than to have faced problems in it himself as an original enquirer. And, after rudiments have been once fairly acquired, there is for good students no training equal to that given by following even a small research under an experienced leader.

SCHOOL OF THOUGHT.

So truly does the laboratory become a school of thought. Your laboratories are arranged with admirable provision for research. The student should enter on his study of natural science through the portal of its fundamental experiments. The attitude his mind thus takes is the true one—the only true one—for further insight into his subject. Too often humanistic studies at school have tended to kill the natural philosopher within him—that innate curiosity for facts, the healthy heritage of childhood. He leaves school a little book-man. Even as to the phenomena of nature, he has been insensibly led to ask for statements upon authority, rather than to turn his own sense and observation to the phenomena themselves. To learn a science or acquire an art resting upon the sciences, the first thing to do is to look at the fundamental facts for yourself. Our great teachers of medicine teach upon this plan. They teach where they learned, not in the library, but from the bedside of the sick. In laboratories such as those raised here for pathology, physiology, and hygiene, students can learn these sciences as medicine is learned in the hospital ward, by direct enquiry into nature. The teachers you give them are men who have won widely-recognized distinction themselves as direct enquirers into nature. Worthy students will appreciate the double boon their *Alma Mater* gives them—the means of learning at first hand those secrets of his craft's skill—and to learn them under guidance by men who excel in unravelling such secrets.

ENGLISH ACTION.

Only by enabling men to continue their learning after their teaching is over can we secure the greatest advantage any educational system can afford. Your laboratories here will encourage post-graduate work. We look with keen interest to the researches that will flow from them. No subjects offer finer fields for research than do the progressive studies, physiology, pathology and hygiene, to which your new University buildings are consecrated. And of the functions of a laboratory, research is not the least costly. We in the Old Country find that. Our central government has done little to support research. Our nation, proud of its success in things practical, has been prone to despise the abstract and the theoretical. We do so foolishly; we do so at our peril. Behind all practical application there is a region of intellectual action to which, though our practical men have

contributed little, they owe the whole of their supplies. Theory, if a goose, is the goose of the fairy tale that lays the golden eggs. No more such eggs, if once you let her die. To speak of theoretic knowledge slightingly is for the lips of the fool. The value of abstract research to a country is becoming more widely acknowledged among us than it was. Sir John Brunner said the other day, at Liverpool, that there was no better investment for a business man than the encouragement of scientific research, and that every penny of the wealth he possesses has come from the application of science to commerce and manufacture. And we find that munificent citizens have and do come forward among us and meet, by their individual gifts, the pressing needs, in this respect, of our community at large.

NEW ERA DAWNING.

But we welcome a new era dawning on us. Liverpool, Birmingham, Sheffield, and other great centres begin to regard the local university as an institution entitled to support from the public means: for instance, by subsidy from public rates. Such subsidies can be used also for studies which do not come within allotment from the smaller subsidy from the central government: medicine, for instance. Proud of the young universities—to which yours of Toronto is a time-honored veteran—communities and local governments are encouraging research within our universities. They do not expect such research to be able to pay its own way, but they recognize that indirectly it does pay the community that gives it a home. They feel it a duty which they owe themselves. Is not the university a part of their own life, and is not research a part of the university's life-blood? They feel it a right due to their own higher selves. It stimulates progress. Supported by the large-handed sympathy of the community and the local government, it means quicker advance, both material and mental; it means invention, and it means medical discovery. And *qui facit alium facit per se* is a motto worthy of the State.

USES OF LABORATORIES.

What, then, are finally the uses of these laboratories now opened by your University? They will assist in training men for various honorable callings, especially for that most ancient one of medicine. They will assist, no doubt, also to render life by practical applications of science superficially still more different from what it was only a short generation ago. They will assist to bring home and distribute to your community treasures of knowledge from all quarters of the globe. They will assist—and it is a thought dear to a high-spirited people—themselves to add to the sum total of the treasures of knowledge of the whole human race.

“Noblesse oblige” appeals to chivalrous nations as well as to chivalrous individuals.

But their highest office seems to me, perhaps, not even these high ones, but a more difficult still. Genius cannot by any community, however wealthy and powerful, be made to order. In Biblical language, it is the gift of God. All a community can do toward obtaining it, be our riches and willingness a thousandfold what they are, is to ensure the rare and glorious plant a meed of freedom, light and warmth for blossoming upon our soil. Who can doubt that in this population here genius exists—not sown, it is true, broadcast, for nowhere is it thus—yet existent, scattered up and down? This it is for the community to foster, to discover.

By help of these finely built and finished laboratories this much in one direction can be done. The problem to which a wise country turns is the discovery less of things than of men. By these laboratories, adequately supported, your community can create opportunities for the exercise of powers which come from sources within itself, but are utterly beyond its power to produce at will. Their loftiest function is creation of this opportunity. For that aim the studies in them must be followed with no single narrow technical purpose, but must be wide of scope and full of access to every rank of students. So shall these laboratories prove a cornerstone for the upbuilding of a temple of knowledge, and a touchstone for the best ore of intellect within the bounds of this great land.

THE MASTER-WORD IN MEDICINE.*

BY WILLIAM OSLER, M.D., F.R.S.,Professor of Medicine, Johns Hopkins University, Baltimore, Md.

I.

BEFORE proceeding to the pleasing duty of addressing the undergraduates, as a native of this province and as an old student of this school, I must say a few words on the momentous changes inaugurated with this session, the most important, perhaps, which have taken place in the history of the profession in Ontario. The splendid laboratories, which we saw opened this afternoon, a witness to the appreciation by the authorities of the needs of science in medicine, makes possible the highest standards of education in the subjects upon which our Art is based. They may do more. A liberal policy, with a due regard to the truth that the greatness of a school lies in brains not bricks, should build up a great scientific centre which will bring renown to this city and to our country. The men in charge of the departments are of the right stamp. See to it that you treat them in the right way by giving skilled assistance enough to ensure that the vitality of men who could work for the world is not sapped by the routine of teaching. One regret will, I know, be in the minds of many of my younger hearers. The removal of the departments of anatomy and physiology from the biological laboratory of the university breaks a connection which has had an important influence on medicine in this city. To Professor Ramsay Wright is due much of the inspiration which has made possible these fine new laboratories. For years he has encouraged in every way the cultivation of the scientific branches of medicine, and has unselfishly devoted much time to promoting the best interests of the Medical Faculty. And in passing let me pay a tribute to the ability and zeal with which Dr. A. B. Macallum has won for himself a world-wide reputation by intricate studies which have carried the name of this University to every nook and corner of the globe where the science of physiology is cultivated. How much you owe to him in connection with the new buildings I need scarcely mention to this audience.

But the other event which we celebrate is of much greater importance. When the money is forthcoming it is an easy matter to join stone to stone in a stately edifice, but it is hard to find

* An address to medical students on the occasion of the opening of the new buildings of the Medical Faculty of the University of Toronto, October 1st, 1903.

the market in which to buy the precious cement which can unite into an harmonious body the professors of medicine of two rival medical schools in the same city. That this has been accomplished so satisfactorily is a tribute to the good sense of the leaders of the two faculties, and tells of their recognition of the needs of the profession of the province. Is it too much to look forward to the absorption or affiliation of the Kingston and London schools into the Provincial University? The day has passed in which the small school without full endowment can live a life beneficial to the students, to the profession, or to the public. I know well of the sacrifice of time and money which is freely made by the teachers of those schools; and they will not misunderstand my motives when I urge them to commit suicide, at least so far as to change their organizations into clinical schools in affiliation with the central university, as part, perhaps, of a widespread affiliation of the hospitals of the province. A school of the first rank in the world, such as this must become, should have ample clinical facilities under its own control. It is as much a necessity that the professors of medicine and surgery, etc., should have large hospital services under their control throughout the year, as it is that professors of pathology and physiology should have laboratories such as those in which we here meet. It should be an easy matter to arrange between the provincial authorities and the trustees of the Toronto General Hospital to replace the present antiquated system of multiple small services by modern well-equipped clinics—three in medicine and three in surgery to begin with. The increased efficiency of the service would be a substantial *quid pro quo*, but there would have to be a self-denying ordinance on the part of many of the attending physicians. With the large number of students in the combined school, no one hospital can furnish in practical medicine, surgery and the specialties a training in the art an equivalent of that which the student will have in the sciences in the new laboratories. An affiliation should be sought with every other hospital in the city and province of fifty beds and over, in each of which two or three extra-mural teachers could be recognized, who would receive for three or more months a number of students proportionate to the beds in the hospital. I need not mention names. We all know men in Ottawa, Kingston, London, Hamilton, Guelph and Chatham, who could take charge of small groups of the senior students and make of them good practical doctors. I merely throw out the suggestion. There are difficulties in the way; but is there anything in this life worth struggling for which does not bristle with them?

Students of medicine: may this day be to each one of you,

as it was to me when I entered this school thirty-five years ago, the beginning of a happy life in a happy calling. Not one of you has come here with such a feeling of relief as that which I experienced at an escape from conic sections and logarithms and from Hooker and Pearson. The dry bones became clothed with interest, and I felt that I had at last got to work. Of the greater advantages with which you start I shall not speak. Why waste words on what you cannot understand. To those only of us who taught and studied in the dingy old building which stood near here is it given to feel the change which the years have wrought, a change which my old teachers, whom I see here to-day—Dr. Richardson, Dr. Ogden, Dr. Thorburn and Dr. Oldright—must find hard to realize. One looks about in vain for some accustomed object on which to rest the eye in its backward glance—all, all are gone; the old familiar places. Even the landscape has altered, and the sense of loneliness and regret, the sort of homesickness one experiences on such occasions, is relieved by a feeling of thankfulness that at least some of the old familiar faces have been spared to see this day. To me at least the memory of those happy days is a perpetual benediction, and I look back upon the two years I spent at this school with the greatest delight. There were many things that might have been improved—and we can say the same of every medical school at that period—but I seem to have got more out of it than our distinguished philosopher friend, J. Beattie Crozier, whose picture of the period seems rather hardly drawn. But after all, as some one has remarked, instruction is often the least part of an education, and, as I recall them, our teachers in their life and doctrine set forth a true and lively word to the great enlightenment of our darkness. They stand out in the background of my memory as a group of men whose influence and example were most helpful. In William R. Beaumont and Edward Mulberry Hodder, we had before us the highest type of the cultivated English surgeon. In Henry H. Wright we saw the incarnation of faithful devotion to duty—too faithful, we thought, as we trudged up to the eight o'clock lecture in the morning. In W. T. Aikins a practical surgeon of remarkable skill and an ideal teacher for the general practitioner. How we wondered and delighted in the anatomical demonstrations of Dr. Richardson, whose infective enthusiasm did much to make anatomy the favorite subject among the students. I had the double advantage of attending the last course of Dr. Ogden and the first of Dr. Thorburn on materia medica and therapeutics. And Dr. Oldright had just begun his career of unselfish devotion to the cause of hygiene.

To one of my teachers I must pay in passing the tribute of filial affection. There are men here to-day who feel as I do about Dr. James Bovell—that he was one of those finer spirits, not uncommon in life, touched to finer issues only in a suitable environment. Would the Paul of evolution have been Thomas Henry Huxley had the Senate elected the young naturalist to a chair in this university in 1851? Only men of a certain metal rise superior to their surroundings, and while Dr. Bovell had that all-important combination of boundless ambition with energy and industry, he had that fatal fault of diffuseness, in which even genius gets strangled. With a quadrilateral mind, which he kept spinning like a teetotum, one side was never kept uppermost for long at a time. Caught in the storm which shook the scientific world with the publication of the “*Origin of Species*,” instead of sailing before the wind, even were it with bare poles, he put about and sought a harbor of refuge in writing a work on *Natural Theology*, which you will find on the shelves of second-hand bookshops in a company made respectable at least by the presence of Paley. He was an omnivorous reader and transmuter, he could talk pleasantly, even at times transcendently, upon anything in the science of the day, from protoplasm to evolution; but he lacked concentration and that scientific accuracy which only comes with a long training (sometimes indeed never comes), and which is the ballast of the boat. But the bent of his mind was devotional, and early swept into the Tractarian movement, he became an advanced Churchman, a good Anglican Catholic. As he chaffingly remarked one day to his friend, the Reverend Mr. Darling, he was like the waterman in “*Pilgrim’s Progress*,” rowing one way, towards Rome, but looking steadfastly in the other direction, towards Lambeth. His “*Steps to the Altar*” and his “*Lectures on the Advent*” attest the earnestness of his convictions; and later in life, following the example of Linaere, he took orders and became another illustration of what Cotton Mather calls the angelical conjunction of medicine with divinity. Then, how well I recall the keen love with which he would engage in metaphysical discussions, and the ardor with which he studied Kant, Hamilton, Reed and Mill. At that day to the Rev. Prof. Bevan was entrusted the rare privilege of directing the minds of the thinking youths at the Provincial University into proper philosophical channels. It was rumored that the hungry sheep looked up and were not fed. I thought so at least, for certain of them, led by T. Wesley Mills, came over daily after Dr. Bovell’s four o’clock lecture to reason high and long with him.

“On Providence, Foreknowledge, Will and Fate—
Fixed Fate, Freewill, Foreknowledge absolute.”

Yet withal his main business in life was as a physician, much sought after for his skill in diagnosis, and much beloved for his loving heart. He had been brought up in the very best practical schools. A pupil of Bright and of Addison, a warm personal friend of Stokes and of Graves, he maintained loyally the traditions of Guy's and taught us to reverence his great masters. As a teacher, he had grasped the fundamental truth announced by John Hunter of the unity of physiological and pathological processes, and, as became the occupant of the chair of the Institute of Medicine, he would discourse on pathological processes in lectures of physiology, and illustrate the physiology of bioplasm in lectures on the pathology of tumors to the bewilderment of the students. When in September, 1870, he wrote to me that he did not intend to return from the West Indies, I felt that I had lost a father and a friend; but in Robert Palmer Howard, of Montreal, I found a noble step-father, and to these two men and to my first teacher, the Rev. W. A. Johnson, of Weston, I owe my success in life—if success means getting what you want and being satisfied with it.

II.

Of the value of an introductory lecture I am not altogether certain. I do not remember to have derived any enduring benefit from the many that I have been called upon to hear, or from the not a few I have inflicted in my day. On the whole I am in favor of abolishing the old custom, but as this is a very special occasion, with special addresses, I consider myself most happy to have been selected for this part of the programme. To the audience at large I fear that much of what I have to say will appear trite and commonplace, but bear with me, since, indeed, to most of you how good soever the word, the season is long past in which it could be spoken to your edification. As I glance from face to face the most striking single peculiarity is the extraordinary diversity that exists among you. Alike in that you are men and white, you are unlike in your features, very unlike in your minds and in your mental training, and your teachers will mourn the singular inequalities in your capacities. And so it is sad to think will be your careers; for one success, for another failure; one will tread the primrose path to the great bon-fire, another the straight and narrow way to renown: some of the best of you will be stricken early on the road, and will join that noble band of youthful martyrs who loved not their lives to the death; others, perhaps the most brilliant among you, like my old friend and comrade, Dick Zimmerman (how he would have rejoiced to see this day!), the Fates will overtake and whirl to destruction

just as success seems assured. When the iniquity of oblivion has blindly scattered her poppy over us, some of you will be the trusted counsellors of this community, and the heads of departments in this Faculty; while for the large majority of you, let us hope, is reserved the happiest and most useful lot given to man—to become vigorous, whole-souled, intelligent general practitioners.

It seems a bounden duty on such an occasion to be honest and frank, so I propose to tell you the secret of life as I have seen the game played, and as I have tried to play it myself. You remember in one of the "Jungle Stories" that when Mowgli wished to be avenged on the villagers he could only get the help of Hathi and his sons by sending them the master-word. This I propose to give you in the hope, yes, in the full assurance, that some of you at least will lay hold upon it to your profit. Though a little one, the master-word looms large in meaning. It is the open sesame to every portal, the great equalizer in the world, the true philosopher's stone which transmutes all the base metal of humanity into gold. The stupid man among you it will make bright, the bright man brilliant and the brilliant student steady. With the magic word in your heart all things are possible, and without it all study is vanity and vexation. The miracles of life are with it: the blind see by touch, the deaf hear with eyes, the dumb speak with fingers. To the youth it brings hope, to the middle-aged confidence, to the aged repose. True balm of hurt minds, in its presence the heart of the sorrowful is lightened and consoled. It is directly responsible for all advances in medicine during the past twenty-five centuries. Laying hold upon it Hippocrates made observation and science the warp and woof of our art. Galen so read its meaning that fifteen centuries stopped thinking, and slept until awakened by the *De Fabrica* of Vesalius, which is the very incarnation of the master-word. With its inspiration Harvey gave an impulse to a larger circulation than he wot of, an impulse which we feel to-day. Hunter sounded all its heights and depths, and stands out in our history as one of the great exemplars of its virtues. With it Virchow smote the rock and the waters of progress gushed out; while in the hands of Pasteur it proved a very talisman to open to us a new heaven in medicine and a new earth in surgery. Not only has it been the touchstone of progress, but it is the measure of success in everyday life. Not a man before you but is beholden to it for his position here, while he who addresses you has that honor directly in consequence of having had it graven on his heart when he was as you are to-day. And the Master-Word is *Work*, a little one, as I have said, but fraught with momentous sequences if you can

but write it on the tables of your heart, and bind it upon your forehead. But there is a serious difficulty in getting you to understand the paramount importance of the work-habit as part of your organization. You are not far from the Tom Sawyer stage with its philosophy "that work consists of whatever a body is obliged to do, and that play consists of whatever a body is not obliged to do."

A great many hard things may be said of the work-habit. For most of us it means a hard battle; the few take to it naturally; the many prefer idleness and never learn to love to labor. Listen to this: "Look at one of your industrious fellows for a moment, I beseech you," says Robert Louis Stevenson. "He sows hurry and reaps indigestion; he puts a vast deal of activity out to interest, and receives a large measure of nervous derangement in return. Either he absents himself entirely from all fellowship, and lives a recluse in a garret, with carpet slippers and a leaden inkpot; or he comes among people swiftly and bitterly, in a contraction of his whole nervous system, to discharge some temper before he returns to work. I do not care how much or how well he works, this fellow is an evil feature in other people's lives." These are the sentiments of an overworked, dejected man; let me quote the motto of his saner moments: "To travel hopefully is better than to arrive, and the true success is in labor." If you wish to learn of the miseries of scholars in order to avoid them, read Part I, Section 2, Member 3, Sub-section XV, of that immortal work, the "Anatomy of Melancholy," but I am here to warn you against these evils, and to entreat you to form good habits in your student days.

At the outset, appreciate clearly the aims and objects each one of you should have in view—a knowledge of disease and its cure, and a knowledge of yourselves. The one, a special education, will make you a practitioner of medicine; the other, an inner education, may make you a truly good man, foursquare and without a flaw. The one is extrinsic and is largely accomplished by teacher and tutor, by text and by tongue; the other is intrinsic, and is the mental salvation to be wrought out by each one for himself. The first may be had without the second; any one of you may become an active practitioner, without ever having had sense enough to realize that through life you have been a fool; or you may have the second without the first, and, without knowing much of the art, you may have the endowments of head and heart that make the little you do possess go very far in the community. With what I hope to infect you is a desire to have a due proportion of each.

So far as your professional education is concerned, what I

shall say may make for each one of you an easy path easier. The multiplicity of the subjects to be studied is a difficulty, and it is hard for teacher and student to get a due sense of proportion in the work. We are in a transition stage in our methods of teaching, and have not everywhere got away from the idea of the examination as the "be-all and the end-all;" so that the student has constantly before his eyes the magical letters of the degree he seeks. And this is well, perhaps, if you will remember that having, in the old phrase, commenced Bachelor of Medicine, you have only reached a point from which you can begin a life-long process of education.

So many and varied are the aspects presented by this theme that I can only lay stress upon a few of the more essential. The very first step towards success in any occupation is to become interested in it. Locke put this in a very happy way when he said, give a pupil "a relish of knowledge" and you put life into his work. And there is nothing more certain than that you cannot study well if you are not interested in your profession. Your presence here is a warrant that in some way you have become attracted to the study of medicine, but the speculative possibilities so warmly cherished at the outset are apt to cool when in contact with the stern realities of the class-room. Most of you have already experienced the all-absorbing attraction of the scientific branches, and nowadays the practical method of presentation has given a zest which was usually lacking in the old theoretical teaching. The life has become more serious in consequence, and medical students have put away many of the childish tricks with which we used to keep up their bad name. Compare the picture of the "sawbones" of 1842, as given in the recent biography of Sir Henry Acland, with their representatives to-day, and it is evident a great revolution has been effected, and very largely by the salutary influence of improved methods of education. It is possible now to fill out a day with practical work, varied enough to prevent monotony, and so arranged that the knowledge is picked out by the student himself, not thrust into him, willy-nilly, at the point of the tongue. He exercises his wits, and is no longer a passive Strassbourg goose, tied up and stuffed to repletion.

How can you take the greatest possible advantage of your capacities with the least possible strain? By cultivating system. I say cultivating advisedly, since some of you will find the acquisition of systematic habits very hard. There are minds congenitally systematic; others have a life-long fight against an inherited tendency to diffuseness and carelessness in work. A few brilliant fellows try to dispense with it altogether, but they

are a burden to their brethren and a sore trial to their intimates. I have heard it remarked that order is the badge of an ordinary mind. So it may be, but as practitioners of medicine we have to be thankful to get into this useful class. Let me entreat those of you who are here for the first time to lay to heart what I say on this matter. Forget all else, but take away this counsel of a man who has had to fight a hard battle, and not always a successful one, for the little order he has had in his life: take away with you a profound conviction of the value of system in your work. I appeal to the freshmen especially, because you to-day make a beginning, and your future career depends very much upon the habits you will form during this session. To follow the routine of the classes is easy enough, but to take routine into every part of your daily life is a hard task. Some of you will start out joyfully as did Christian and Hopeful, and for many days will journey safely towards the Delectable Mountains, dreaming of them and not thinking of disaster until you find yourselves in the strong captivity of Doubt and under the grinding tyranny of Despair. You have been over-confident. Begin again and more cautiously. No student escapes wholly from these perils and trials; be not disheartened, expect them. Let each hour of the day have its allotted duty, and cultivate that power of concentration which grows with its exercise, so that the attention neither flags nor wavers, but settles with a bull-dog tenacity on the subject before you. Constant repetition makes a good habit fit easily in your mind, and by the end of the session you may have gained that most precious of all knowledge—the power to work. Do not underestimate the difficulty you will have in wringing from your reluctant selves the stern determination to exact the uttermost minute on your schedule. Do not get too interested in one study at the expense of another, but so map out your day that due allowance is given to each. Only in this way can the average student get the best that he can out of his capacities. And it is worth all the pains and trouble he can possibly take for the ultimate gain—if he can reach his doctorate with system so ingrained that it has become an integral part of his being. The artistic sense of perfection in work is another much-to-be-desired quality to be cultivated. No matter how trifling the matter on hand, do it with a feeling that it demands the best that is in you, and when done look it over with a critical eye, not sparing a strict judgment on yourself. This it is that makes anatomy a student's touch-stone. Take the man who does his "part" to perfection, who has got out all there is in it, who labors over the tags of connective tissue, and who demonstrates Meckel's ganglion in his part—this is the fellow in after years who is apt in emer-

gencies, who saves a leg badly smashed in a railway accident, or fights out to the finish, never knowing when he is beaten, in a case of typhoid fever.

Learn to love the freedom of the student life, only too quickly to pass away: the absence of the coarser cares of after days, the joy of comradeship, the delight in new work, the happiness in knowing that you are making progress. Once only can you enjoy these pleasures. The seclusion of the student life is not always good for a man, particularly for those of you who will afterwards engage in general practice, since you will miss that facility of intercourse upon which often the doctor's success depends. On the other hand, sequestration is essential for those of you with high ambitions proportionate to your capacity. It was for such that St. Chrysostom gave his famous counsel, "Depart from the highways and transplant thyself into some enclosed ground, for it is hard for a tree that stands by the wayside to keep its fruit till it be ripe."

Has work no dangers connected with it? What of this bogey of overwork of which we hear so much? There are dangers, but they may readily be avoided with a little care. I can only mention two, one physical, one mental. The very best students are often not the strongest. Ill-health, the bridle of Theages, as Plato called it in the case of one of his friends whose mind had thriven at the expense of the body, may have been the diverting influence toward books or the profession. Among the good men who have studied with me there stand out in my remembrance many a young Lyeidas, "dead ere his prime," sacrificed to carelessness in habits of living and neglect of ordinary sanitary laws. Medical students are much exposed to infection of all sorts, to combat which the body must be kept in first-class condition. Grossteste, the great Bishop of Lincoln, remarked that there were three things necessary for temporal salvation—food, sleep and a cheerful disposition. Add to these suitable exercise and you have the means by which good health may be maintained. Not that health is to be a matter of perpetual solicitation, but habits which favor the *corpus sanum* foster the *mens sana*, in which the joy of living and the joy of working are blended in one harmony. Let me read you a quotation from Old Burton, the great authority on *morbi eruditorum*. There are "many reasons why students dote more often than others. The first is their negligence. Other men look to their tools: a painter will wash his pencils; a smith will look to his hammer, anvil, forge; a husbandman will mend his plough-irons, and grind his hatchet, if it be dull; a falconer or huntsman will have an especial care of his hawks, hounds, horses, dogs, etc.; a musician will string and unstring his lute,

etc.: only scholars neglect that instrument, their brain and spirits (I mean) which they daily use.”*

Much study is not only believed to be a weariness of the flesh, but also an active cause of ill-health of mind, in all grades and phase. I deny that work, legitimate work, has anything to do with this. It is that foul fiend Worry who is responsible for a large majority of the cases. The more carefully one looks into the cause of nervous breakdown in students, the less important is work *per se* as a factor. There are a few cases of genuine overwork, but they are not common. Of the causes of worry in the student life there are three of prime importance to which I may briefly refer.

An anticipatory attitude of mind, a perpetual forecasting, disturbs the even tenor of his way and leads to disaster. Years ago a sentence in one of Carlyle's essays made a lasting impression on me: “Our duty is not to *see* what lies dimly at a distance, but to *do* what lies clearly at hand.” I have long maintained that the best motto for a student is, “Take no thought for the morrow.” Let the day's work suffice; live for it, regardless of what the future has in store, believing that to-morrow should take thought for the things of itself. There is no such safeguard against the morbid apprehensions about the future, the dread of examinations and the doubt of ultimate success. Nor is there any risk that such an attitude may breed carelessness. On the contrary, the absorption in the duty of the hour is in itself the best guarantee of ultimate success. “He that regardeth the wind shall not sow, and he that observeth the clouds shall not reap,” which means you cannot work profitably with your mind set upon the future.

Another potent cause of worry is an idolatry by which many of you will be sore let and hindered. The mistress of your studies should be the heavenly Aphrodite, the motherless daughter of Uranus. Give her your whole heart, and she will be your protectress and friend. A jealous creature, brooking no second, if she finds you trifling and coquetting with her rival, the younger, early Aphrodite, daughter of Zeus and Dione, she will whistle you off, and let you down the wind to be a prey, perhaps to the examiners, certainly to the worm regret. In plainer language, put your affections in cold storage for a few years, and you will take them out ripened, perhaps a bit mellow, but certainly less subject to those frequent changes which perplex so many young men. Only a grand passion, an all-absorbing devotion to the elder goddess can save the man with a congenital tendency to philandering, the flighty Lydgate who sports with Celia and

* Quotation mainly from Marsilius Ficinus.

Dorothea, and upon whom the judgment ultimately falls in a basil-plat of a wife like Rosamond.

And thirdly, one and all of you will have to face the ordeal of every student in this generation who sooner or later tries to mix the waters of science with the oil of faith. You can have a great deal of both if you can only keep them separate. The worry comes from the attempt at mixture. As general practitioners you will need all the faith you can carry, and while it may not always be of the conventional pattern, when expressed in your lives rather than on your lips, the variety is not a bad one from the standpoint of St. James; and may help to counteract the common scandal alluded to in the celebrated diary of that gossipy old parson-doctor, the Rev. John Ward: "One told the Bishop of Gloucester that he imagined physicians of all other men the most competent judges of all others' affairs of religion—and his reason was because they were wholly unconcerned with it."

III.

Professional work of any sort tends to narrow the mind, to limit the point of view, and to put a hall-mark on a man of a most unmistakable kind. On the one hand are the intense, ardent natures, absorbed in their studies and quickly losing interest in everything but their profession, while other faculties and interests "rust" unused. On the other hand are the bovine brethren, who think of nothing but the treadmill and the corn. From very different causes, the one from concentration, the other from apathy, both are apt to neglect those outside studies that widen the sympathies and help a man to get the best there is out of life. Like art, medicine is an exacting mistress, and in the pursuit of one of the scientific branches, sometimes, too, in practice, not a portion of a man's spirit may be left free for other distractions, but this does not often happen. On account of the intimate personal nature of his work, the medical man, perhaps more than any other man, needs that higher education of which Plato speaks—"that education in virtue from youth upwards, which enables a man eagerly to pursue the ideal perfection." It is not for all, nor can all attain to it, but there is comfort and help in the pursuit, even though the end is never reached. For a large majority the daily round and the common task furnish more than enough to satisfy their heart's desire, and there seems no room left for anything else. Like the good, easy man whom Milton scores in the *Areopagitica*, whose religion was a "traffic so entangled that of all mysteries he could not skill to keep a stock going upon that trade," and handed it over with all the locks and keys to "a divine of note and estimation," so is it with many of us in the matter of this higher

education. No longer intrinsic, wrought in us and ingrained, it has become, in Milton phrase, a "dividual movable," handed over nowadays to the daily press or to the hap-hazard instruction of the pulpit, the platform, or the magazines. Like a good many other things, it comes to a better and more enduring form if not too consciously sought. The all-important thing is to get a relish for the good company of the race in a daily intercourse with some of the great minds of all ages. Now, in the spring-time of life, pick your intimates among them, and begin a systematic cultivation of their works. Many of you will need a strong leaven to raise you above the level of the dough in which it will be your lot to labor. Uncongenial surroundings, an ever-present dissonance between the aspirations within and the actualities without, the oppressive discords of human society, the bitter tragedies of life, the *lacrymae rerum*, beside the hidden springs of which we sit in sad despair—all these tend to foster in some natures a cynicism quite foreign to our vocation, and to which this inner education offers the best antidote. Personal contact with men of high purpose and character will help a man to make a start—to have the desire, at least, but in its fulness this culture—for that word best expresses it—has to be wrought out by each one for himself. Start at once a bed-side library and spend the last half-hour of the day in communion with the saints of humanity. There are great lessons to be learned from Job and from David, from Isaiah and St. Paul. Taught by Shakespeare you may take your intellectual and moral measure with singular precision. Learn to love Epictetus and Marcus Aurelius. Should you be so fortunate as to be born a Platonist, Jowett will introduce you to the great master through whom alone we can think in certain levels, and whose perpetual modernness startles and delights. Montaigne will teach moderation in all things, and to be "sealed of his tribe" is a special privilege. We have in the profession only a few great literary heroes of the first rank, the friendship and counsel of two of whom you cannot too earnestly seek. Sir Thomas Brown's "Religio Medici" should be your pocket companion, while from the "Breakfast Table Series" of Oliver Wendell Holmes you can glean a philosophy of life peculiarly suited to the needs of a physician. There are at least a dozen or more works which would be helpful in getting that wisdom in life which only comes to those who earnestly seek it.

A conscientious pursuit of Plato's ideal perfection may teach you the three great lessons of life. You may learn to consume your own smoke. The atmosphere of life is darkened by the murmurings and whimperings of men and women over the non-essentials, the trifles, that are inevitably incident to the hurly-burly of

the day's routine. Things cannot always go your way. Learn to accept in silence the minor aggravations, cultivate the gift of taciturnity and consume your own smoke with an extra draught of hard work, so that those about you may not be annoyed with the dust and soot of your complaints. More than any other the practitioner of medicine may illustrate the second great lesson, that we are here not to get all we can out of life for ourselves, but to try to make the lives of others happier. This is the essence of that oft-repeated admonition of Christ, "He that findeth his life shall lose it, and he that loseth his life for my sake shall find it," on which hard saying if the children of this generation would lay hold, there would be less misery and discontent in the world. It is not possible for anyone to have better opportunities to live this lesson than you will enjoy. The practice of medicine is an art, not a trade, a calling, not a business, a calling in which your heart will be exercised equally with your head. Often the best part of your work will have nothing to do with potions and powders, but with the exercise of an influence of the strong upon the weak, of the righteous upon the wicked, of the wise upon the foolish. To you as the trusted family counsellor the father will come with his anxieties, the mother with her hidden griefs, the daughter with her trials, and the son with his follies. Fully one-third of the work you do will be entered in other books than yours. Courage and cheerfulness will not only carry you over the rough places of life, but will enable you to bring comfort and help to the weak-hearted, and will console you in the sad hours when, like Uncle Toby, you have "to whistle that you may not weep."

And the third great lesson you may learn is the hardest of all—that the law of the higher life is only fulfilled by love or charity. Many a physician whose daily work is a daily round of beneficence will say hard things and will think hard thoughts of a colleague. No sin will so easily beset you as uncharitableness towards your brother practitioner. So strong is the personal element in the practice of medicine, and so many are the wagging tongues in every parish, that evil speaking, lying and slandering find a shining mark in the lapses and mistakes which are inevitable in our work. There is no reason for discord and disagreement, and the only way to avoid trouble is to have two plain rules. From the day you begin practice never under any circumstances listen to a tale told to the detriment of a brother practitioner. And when any dispute or trouble does arise, go frankly, ere sunset, and talk the matter over, in which way you may gain a brother and a friend. Very easy to carry out, you may think! Far from it; there is no harder battle to fight. Theoretically, there seems to be no difficulty, but when the concrete wound is

rankling, and after Mrs. Jones has rubbed in the cayenne pepper by declaring that Dr. J. told her in confidence of your shocking bungling, your attitude of mind is that you would rather see him in purgatory than make advances towards reconciliation. Wait until the day of your trial comes and then remember my words.

And in closing may I say a few words to the younger practitioners in the audience whose activities will wax, not wane, with the growing years of the century which opens so auspiciously for this school, for this city, for this country. You enter a noble heritage, made by no efforts of your own, but by generations of men who have unselfishly sought to do the best they could for suffering mankind. Much has been done, much remains to do; a way has been opened, and to the possibilities in the scientific development of medicine there seems to be no limit. Except in its application, as general practitioners, you will not have much to do with this. Yours is a higher and a more sacred duty. Think not to light a light to shine before men that they may see your good works; contrariwise, you belong to the great army of quiet workers, physicians and priests, sisters and nurses, all over the world, the members of which strive not neither do they cry, nor are their voices heard in the streets, but to them is given the ministry of consolation in sorrow, need and sickness. Like the ideal wife of whom Plutarch speaks, the best doctor is often the one of whom the public hears least; but nowadays in the fierce light that beats upon the hearth, it is increasingly difficult to live the secluded life in which our best work is done. To you the silent workers of the ranks, in villages and country districts, in the slums of our large cities, in the mining camps and factory towns, in the homes of the rich and in the hovels of the poor—to you is given the harder task of illustrating in your lives the old Hippocratic standards of learning, of sagacity, of humanity and of probity. Of learning, that you may apply in your practice the best that is known in our art, and that with the increase in that priceless endowment of sagacity, so that to all everywhere skilled succor may come in the hour of urgent need. Of a humanity that will show in your daily life tenderness and consideration to the weak, infinite pity to the suffering and a broad charity to all. Of a probity that will make you under all circumstances true to yourselves, true to your high calling, and true to your fellowmen.

THE MEDICAL TREATMENT OF DISEASES OF THE NOSE AND THROAT.*

BY JOHN HUNTER, M.B., TORONTO.

MORBID conditions present themselves in far clearer outline, and can be much more successfully treated, when the physician is familiar with the normal structure and functions of the organs involved in the disease. This fact suggests a division of my paper into two sections: (1) A reference to the structure and functions of those tissues in the nares, pharynx, and the larynx most frequently affected by disease; (2) The medical treatment of these diseases. Time and space are despotic masters, and their limitations only permit of something like a "flash-light" picture of the first division.

The vast expanse of mucous membrane in the upper portion of the respiratory tract challenges special attention to its structure and functions on account of the frequency with which it becomes the seat of disease. The most superficial layers consist of epithelium—either the pavement, columnar or ciliated variety, according to location and function. The cilia wave in a thin fluid. The epithelial layer is very vulnerable to disease, and when disorganized, permits the passage of bacteria and other morbid elements into the deeper structures. It is reproduced, nourished, and abundantly supplied with serum and mucus. This supply comes from the submucous layer through innumerable little canals or perforations in the basement membrane, on which the epithelial layer rests. The submucous layer is composed of a number of elements, and varies greatly in thickness. The component parts are a network of connective tissue—lymphoid or adenoid cells, leucocytes, serous and mucous glands, vascular channels, blood-vessels and nerves. The submucous layer is so distensible in some places, *e.g.*, over the inferior turbinate, as to constitute practically an erectile tissue. The vascular channels and blood-vessels are very susceptible to vaso-motor disturbances, hence the tumefaction, hyperemia, or anemia, so frequently present. "The circulation of the nasal mucous membrane is very complex. There are three systems of capillaries—first, periosteal; then those forming a network around the mucous glands, and finally those supplying the surface of the mucous membrane. The veins are everywhere large in calibre, while the lumen of the arteries is unusually small." "When the veins of the erectile tissue dilate by reason of relaxation of their muscular coats, a large amount of blood is

* Read at meeting of Canadian Medical Association, London, August 25th to 28th, 1903.

retained in them, which in cooling warms the respired air. This warming of the air is supposed by some to be the function of the erectile tissue." (Ingals.) The serous and mucous glands are embedded in the submucous layer, and they supply an abundance of serum and mucus for the epithelial layer. The quantity may be a pint or more in twenty-four hours. Beneath the submucous layer we have the dense, firm membrane, the perichondrium, covering the cartilages, and the periosteum, covering the bones. These may be involved in disease, and give rise to intense pain.

The cartilages (triangular) forming the anterior portion of the septum naris, the epiglottis, and the arytenoids, may be perforated or disorganized by pyogenic bacteria, or by the virus of syphilis or tuberculosis. The bones—ethmoid, sphenoid, vomer and turbinates—may be attacked by the same morbid elements, and caries or necrosis produced.

The functions of this portion of the respiratory tract are two-fold: (1) respiratory; (2) vocal. When the act of inspiration begins, the air vesicles dilate; a negative pressure is produced in the bronchi, and thus a current is established towards the lungs. The air, on entering the nostrils, passes upward behind the nose, and backwards along the upper portion of the nasal chamber. The current of inspired air passes through the choanæ, or posterior orifices of the nares, and enters the naso-pharynx at a right angle. From the course the air takes it will be readily understood why polypi or other obstruction, in the superior or middle meatus, constriction of the choanæ, adenoids in the vault of the pharynx, or enlarged faucial tonsils, so seriously interfere with respiration. The air, in its passage through the nares and pharynx, is warmed, moistened, and purified. The vocal cords in the larynx, by approximating their edges, and becoming more tense, can produce in the expired air series of vibrations, that give rise to what is technically known as pitch of voice. The pharynx, mouth, and nares act as resonance chambers producing the various modifications of tone.

MEDICAL TREATMENT.

Treatment of diseases of the nose and throat is governed by the simple principles that govern the treatment of other forms of disease. Heredity endows each individual with a special form of organs, and with tissues of a specific type. Environment furnishes the conditions for the development and perpetuation of life, and habits are the "bundles of ways" we have of doing things. All of these are potent factors in the etiology of diseases of the nose and throat, and any treatment undertaken without a thorough investigation of them is both rash and reprehensible.

Morbid conditions elsewhere are exciting or predisposing

causes of disease in this portion of the respiratory tract, hence the imperative necessity for a careful and intelligent examination of the patient. The diseases of the nose and throat most frequently found in general practice are the acute and chronic inflammations known as acute or chronic rhinitis, pharyngitis, or laryngitis, or to the laity as catarrh. The conditions to be met are two-fold: first, general; second, local. General treatment involves the removal or mitigation, if possible, of any morbid conditions present anywhere in the body: the provision of a proper dietetic regimen, and the elimination of waste products by the bowels, kidneys, and skin. Baths are very valuable prophylactic and curative aids in nose and throat cases. The temperature and duration of the bath must be suitable for the individual. Most people can quickly acquire the mental and physical stamina that will enable them to take cold baths, and be immensely benefited by them. My advice to such patients is, on arising, to drink copiously of cold water, then immerse themselves in the cold water, and, whilst the body is submerged, to briskly rub the surface, and after getting out, to rub as much of the water into the skin as possible, before drying with the bath towel. One of my patients facetiously remarked, that by drinking the water and bathing he was washed both inside and outside. After the bath, some form of gymnastic exercise is prescribed. A simple form is to have the arms brought to a horizontal position before the face, then, during a very deep inspiration, carried backwards or upwards; the hands with thumbs forward, placed along the crest of the ilium, and the body bent as far back as possible. It is scarcely necessary to add that sunshine and pure air are our best auxiliaries in the treatment of these diseases.

Local Treatment.—The conditions to be met by local treatment are: (1) The removal of morbid secretions: (2) The removal of morbid conditions, *e.g.*, hyperemia, hypertrophy, or atrophy of the mucous membrane. In regard to the removal of morbid secretions, several methods are in use: The nasal douche, by which the fluid passes along one nostril, around the posterior border of the septum, and returns by the other nostril. Special precaution must be taken if the douche be used. A long, flexible probe, the end of which is wrapped with absorbent cotton and moistened by some oily fluid, is passed backwards through each nostril into the naso-pharynx, to find out if there be any obstruction to the return current, lest infectious material be forced into the Eustachian tube, and very dangerous trouble be set up in the middle ear. The vessel containing the fluid should be held on a level with the nostril, until the return current is established, then gradually raised a few inches. The head should incline forward, the mouth kept open, and no attempt made at swallowing while

the current is flowing. The following are examples of fluids or solutions that may be used for cleansing purposes, as douches or sprays: Warm milk, with a teaspoonful of salt to the pint, is a valuable sedative. Alkaline mixtures for dissolving mucus: potassium, or sodium bicarbonate, gr. v.-xx. to the ounce. Astringents and antiseptics: sulpho-carbolate of zinc or sod., gr. v.-xx.; Listerine, borolyptol, hydrastis, etc. I need not extend the list, for every general practitioner should have a special work on "Diseases of Nose and Throat," and one of the very best of these is by our own Canadian author, Dr. Price-Brown.

In addition to the douche, the cleansing can be very efficiently done by means of an atomizer. In using the atomizer the patient should direct the spray first toward the vault of the nares, then toward each side, and lastly wash out the nasal floor. A very valuable and convenient instrument is a soft or hard rubber catheter, the end of which is closed, and a few perforations made in the surface near the end. This irrigation tube may be attached to any form of syringe. The curved end of a post-nasal syringe is passed upward behind the soft palate, and the spray directed against the vault of the pharynx. In spraying the larynx, a syringe with a long curved tube may be used. The laryngeal mirror should be used to direct the spray. After the cleansing process, the physician dilates the vestibule by the aid of a nasal speculum, and with a head-mirror and suitable light inspects the nasal chambers. A flexible probe, the end of which is wrapped with cotton, is used to dry the mucous surfaces. The cotton is removed from the end of the probe, and the consistency of any hypertrophied tissue is ascertained. The field is now clear for special treatment. Sensitiveness, or hyperemia, can be removed by swabbing with a solution of cocaine, or hydnaline. Stronger astringents, directly applied, or a bead of chromic acid fused on the end of the probe, if an escharotic be required, or the galvanocautery used. The nostrils are now sprayed with menthol and albolene solution, and the patient instructed to use this solution once or twice daily until he returns for further treatment. The physician must insist on his patient returning regularly to his office while under treatment. The results are extremely unsatisfactory when the patient is advised to get an atomizer and use a prescribed solution. The disgusting array of quacks and quack medicine for catarrh is an opprobrium to our calling, and very largely due to our gross carelessness in managing these cases. It is just as true in medical practice as in business or industrial pursuits, that the degree of attention to minute details spells success or failure.

Laryngeal cases require the aid of the laryngeal mirror, and very great care must be exercised in using strong astringents,

escharotics, or galvano-cautery. In acute laryngeal cases, and in chronic ones where there is much irritation, inhalations of medicated vapors are valuable curative agents. These hot vapors contract the blood-vessels, stimulate the circulation, and thus remove hyperemia, or edema. Their antiseptic and anodyne properties serve very useful purposes.

In the preceding paragraphs the writer has endeavored to briefly outline a method of treatment for the ordinary inflammatory conditions met with in the upper portion of the respiratory tract. It is the purport of the paper to only mention such treatment as can be carried out efficiently by the general practitioner everywhere. I would like to suggest to the younger members of our profession, that in this field successful treatment becomes very apparent to the patient, and much more widely discussed than the successful management of typhoid fever or pneumonia. Few of us who have been in practice for a quarter of a century, who do not look back with deep regret to the injury we have done, both to our patients and to ourselves, by neglecting these cases. Nose and throat work can be made a very interesting and profitable department of general practice.

In addition to the acute and chronic conditions already referred to, we have, apart from surgical cases, three diseases that fall especially within the province of general practice, viz., atrophic, syphilitic, and tubercular lesions.

In atrophic rhinitis the mucous membrane becomes thinner, and all its tissues undergo retrograde changes. The nasal chambers become more roomy. The normal serous secretion is diminished, and crusts adhere to the dry surface. These crusts may decompose, and emit a very offensive odor known as ozena. The indications for treatment are: (1) Thorough cleansing of the secretions and offensive crusts; (2) The use of stimulating applications to the mucous membrane. The nares should be sprayed with an oily solution to dissolve the hard offensive crusts, then the irrigating tube, already mentioned, should be introduced and the mucous membrane thoroughly cleansed with a warm solution of permanganate of potash, quarter grain to the ounce. Dilate vestibule with nasal speculum, and with the aid of head-mirror, remove with a swab of cotton any fragments that have been left; then moisten a swab in a solution like following: menthol, gr. v.; oil of cloves, min. v.; acid carbolic, min. iii.; albolene, one ounce; and brush the mucous membrane by a rapid to and fro movement. The patient must return regularly for treatment. At home he may use an antiseptic spray for cleansing purposes, and use the following kind of snuff: acid boracic, grs. 75; aristol, grs. 23; menthol and thymol of each one grain.

Syphilis may be present in the primary, secondary, or tertiary

form; hence the imperative necessity for a very careful search for syphilitic lesions elsewhere. In the tertiary form, ulceration and destruction of tissue may be both rapid and extensive. The excessive secretions and crusts are to be removed, and the mucous surfaces inspected, as in atrophic rhinitis; the ulcers cleansed and brushed with Churchill's tincture of iodine. In tertiary form the constitutional or specific treatment must be promptly and boldly pushed to physiological tolerance—20 to 120 or more grains of iodide of potash in a glass of milk or water, an hour or so after meals, and continued until the disease is arrested. The physician must keep a very close supervision over these cases. The congenital form can be treated with mercury and chalk mixture, inunctions, etc., with careful attention to the general condition of the patient.

Tuberculosis in the upper portion of the respiratory tract calls for help from every available source to keep up general nutrition. Local treatment consists in the use of the cleansing processes already mentioned—hot or cold inhalations of medicated vapors, antiseptic and anodyne. The ulcerations should be brushed with a fifty or seventy-five per cent. solution of lactic acid, after an application of a cocaine solution.

All treatment in the larynx should be guided by the aid of a laryngeal mirror. Oily solutions, such as menthol and albolene, may be thrown into the larynx by means of a syringe with a long, curved nozzle. The lip of the nozzle should be guided into the upper aperture of the larynx by the aid of reflected light, and the patient asked to inspire deeply as the warm solution is being forced from the syringe. Violent coughing may immediately follow, the intra-laryngeal injection, so that when there is danger of hemorrhage, sprays or inhalations should be used instead.

Selected Articles.

MUCOUS MEMBRANES: THEIR PATHOLOGIC CONDITIONS AND TREATMENT.

BY ARTHUR W. YALE, M.D.

For the past three years clinical observations in the many uses of picric acid, especially in the female genital tract, have engrossed the writer's attention. Its usefulness in the treatment of pelvic inflammations has become an established fact. Experiments with the drug in the treatment of gonorrhea in the male, however, did not yield the satisfactory results anticipated; and from the literature of this prevalent disease, it would appear that silver is the only drug which has stood the test of time. The idea at once suggested itself of a combination of picric acid and silver. Consulting the pharmaceutical chemists who have been making picric acid suppositories for me, they very kindly consented to carry on experiments in the combining of the two drugs, and the result has been a definite salt, containing 30 per cent. of silver. This trinitrophénolate of silver, to which the manufacturers have given the trade name of *Picratol*, is a flocculent, golden-yellow, crystalline substance soluble in water to the extent of 2 per cent., in alcohol 1 3-4 per cent., and also in glycerin, ether and chloroform. It should be noted that this is the first true organic salt of silver to be placed before the profession. Numerous albuminates of silver, some of them claimed to be salts, have been placed upon the market; but there is a vast difference between an albuminate and a salt. The former may contain any proportion of the metal—one, two, three, four, five, ten, twenty, or even thirty per cent.—the proportion varying according to the manipulation of the process employed, while a salt is a definite combination of the silver with an acid, forming a new compound, the medical properties of which are usually a combination of the physiological action of the acid and base employed. This is especially true of the trinitrophenolate of silver, as the silver is held in loose combination, being freed when the salt comes in contact with organic substances. While this is characteristic of other combinations of silver, few possess it to such a marked degree as does *Picratol*.

Believing that in *Picratol* we have a new and valuable addi-

tion to our armamentarium, the writer desires to bring it to the attention of the medical profession. The following are two or three pathological conditions in which it has been found useful.

The first of these is gonorrhea, for which the salt was primarily made. Here it may be used with a Valentine irrigator, starting with one ounce of the saturated aqueous solution to the quart of water, and increasing the strength to the limit of the patient's endurance. It may also be used in the small hand syringe, the patient injecting it himself several times a day. Here the strongest solution which the patient can tolerate is advised. In chronic cases, the urethral suppository has been most efficacious, the patient being directed to insert a long or short suppository, according to the requirements of the case, night and morning, directly after urinating. The following cases are appended as illustrative of the action of Pieratol upon the urethral mucous membrane:

Mr. P., aged 19, had contracted gonorrhea six weeks prior to first visit, which was made on August 28th. A previous attack, two years before, had only yielded to several months of treatment. When first seen, there was a yellow discharge, thick, offensive, and profuse; also a bubo upon the right side. A treatment, consisting in irrigation with 1-2 per cent. solution of Pieratol, was given on August 28th, 29th, 31st, September 1st, 2nd, 3rd, 4th, 5th, 6th and 7th. On the 9th the discharge had entirely ceased. Pieratol paste was applied to the bubo on August 28th and 29th. On the 31st, the swelling had entirely disappeared, and the application was therefore discontinued.

Mr. C. Gonorrhea was contracted one year previous. From the first physician whom he consulted, he received no relief whatever. Under the treatment of the second, discharge was lessened after fourteen weeks' treatment. It ceased entirely for two weeks, only to reappear at the end of that time. The patient then had recourse to one physician after another without obtaining relief. Pieratol suppositories were first used on November 15th, the patient being directed to insert one night and morning, directly after urinating. In four days the discharge had entirely ceased, and up to the present time has not reappeared.

Mr. H. Contracted gonorrhea two years prior to first visit, the discharge having been almost continuous during that period. The first treatment consisted in an irrigation of 1-10 per cent. solution of Pieratol, after which a 1 grain suppository was used. Six of these suppositories were given the patient, with instructions to use one night and morning, directly after urinating. As a result, the discharge disappeared in three days; and although six months have passed since cessation, it has not reappeared.—

Abstract from *Medical Council*.

HAY FEVER.

BY HENRY W. COE, M.D.

THE doctor who has not felt the distress of a good vigorous, protracted attack of hay fever and the pleasures of relief, cannot after its departure while yet upon this mundane sphere, have fully comprehended the joys of Heaven, where all is peace, and where one's nostrils are only employed for the purpose of inhaling celestial ether, and where sneezing, wheezing, blowing, and wiping are absent attributes of the olfactory appendages.

A change of air, if one knows where to go, is a great thing, but a climate which this year may prove advantageous to a sufferer may next season prove unavailing, while a region which will promptly relieve one patient will fail to ease the distress in the case of another.

Again, with most people, business, family, or other causes must always interdict a change of location just at the time of the year when it would be most desirable, even in case it is known that residence in any certain locality would cause the cessation of this distressing malady.

It has been said that he who causes two blades of grass to grow where one formerly grew is the benefactor of his race, but the editor of the *Medical Sentinel* feels that he who can make one sneeze appear where two formerly existed in hay fever sufferers is doubly a benefactor of his race, and in saying this the editor speaks from personal experience extending over several years. He desires to mention by name this benefactor, none other than Professor Charles Marchand, of New York City, the discoverer of that incomparable preparation of H_2O_2 , known as Hydrozone.

The *Medical Sentinel* is perfectly willing to stand sponsor for this preparation for the relief of hay fever and to say that sufferers, after its use for a few days, can begin to realize what the joys of Heaven are to be, although still bound by temporal things to this present world of ours. What we say is not an advertisement, nor fulsome praise of a liberal advertiser, but the spontaneous and irresistible tribute of a G. P.—a grateful patient.

There is a good deal in using this preparation in the right way. It should be used early in the attack if the sickness is to be aborted for the season, but even after the ailment is well upon the sufferer the relief upon its use is prompt and extremely marked.

A few minims only of Hydrozone should be dropped into the Hydrozone douche cup already nearly full of tepid water, and when thus diluted, the solution should be poured into one nostril,

allowing it to come out of the other, and then reverse the process with another portion. If irritating, reduce the strength. A shade under is better than a shade over blood heat for the solution. Avoid all force. Much blowing must certainly be avoided. It should be used the first thing in the morning and the last thing at night and the relief for the sufferer, which is certain to follow, will raise up another prophet in the land, proclaiming the virtues of Hydrozone, the good sense of Professor Marchand, and blessing the doctor, whoever he be, who at last found in Hydrozone something which would remove the distress of hay fever.—*Medical Sentinel.*

THERAPEUTIC VALUE OF IODIPIN.

PROF. H. WINTERITZ, the introducer of iodipin, contributes a paper on the physiological principles of iodipin therapy, in which he gives his opinion of the therapeutic value of the drug as based on years of observations. The external application of iodipin is condemned; even on brisk immunction day after day no iodine appears in the urine.

The rectal administration is also but little satisfactory, for only 10 per cent. of the iodipin seems to be absorbed into the system. The addition of pancreatin to the enemata increases the amount taken up some, yet this method of administration is very inaccurate. For internal use the 10-per-cent., and for subcutaneous the 25-per-cent. preparation, are recommended. Iodipin is not acted upon by the saliva or the gastric juice, even where pathological conditions of the stomach are present, nor does any absorption take place from the gastric mucous membrane. An absorption into the lymph-channels finally occurs from the intestines; the greater part of the drug is taken up unchanged, only a small percentage being split up by the intestinal contents. In the blood, iodipin circulates in small amounts and in finest subdivision, and free iodine is constantly split off, to unite with the alkali salts present. As soon as this occurs, iodine can be detected in the urine and saliva. The time which elapses between the ingestion of 1 1-2 to 5 gm. of iodipin and detection of iodine in the saliva is generally ten to forty-five minutes if the stomach functionates properly. It requires four to six days till 10 gm. of iodipin are eliminated, while the same amount of potassium iodide is excreted in from two to three days. The fat, which is not at once utilized by the body, is stored up chiefly in the muscles, liver, bone-marrow, and subcutaneous tissue. The slow assimilation explains why intoxication is not likely to occur. The amount of drug lost through the feces is very small; in one case where the feces were analyzed for many days it amounted

only to 4 per cent. It also appears in the milk, both as such and as iodide. As for the subcutaneous administration, it was found that after long-continued use, iodine could still be found in the urine 402 days after the last dose was given. Here also the various internal organs and the blood gave positive iodine reactions. Massage, bodily exercise, and baths will invariably hasten absorption and excretion.

The author concludes from his observations that iodipin is indicated where a prolonged effect is desired, especially since loss of weight and cachexia do not develop: and in bronchial asthma, syphilitic endarteritis, and lead colic considerably more can be accomplished than with the alkali iodides now in vogue.—*Munch. med. Woch.*

SHE FOLLOWED INSTRUCTIONS.

A young nurse in one of New York's largest hospitals had a lesson in literal obedience the other day which gave her a great shock, and caused endless amusement to the rest of the hospital staff.

The nurse was a probationer and, consequently, somewhat limited in her experience; but one thing had been impressed on her mind very strongly—that she should faithfully and exactly carry out the orders of the hospital doctors.

The first patient who was put in the care of the young probationer was what in hospital slang is called a "whisky case," in other words, a man on the verge of delirium tremens. He came to the hospital in the ambulance, was put to bed and quieted by the doctors, and, for the moment, was peaceful. But, anticipating that this state might not last long, the doctor filled a hypodermic syringe with a morphine solution and told the young nurse if the man got violent to use the morphine.

"If he sees snakes," was his parting injunction, "give him that."

Not long after the doctor had gone the persons in that part of the hospital were aroused by frightful yells and terrific screams. The noise was kept up, and the head nurse rushed to where the probationer and her patient were, to find the "whisky case" carrying on dreadfully.

"What's the matter?" said the head nurse to the probationer. "Didn't the doctor tell you to give him something?"

"Yes, he left some medicine."

"Well, why didn't you give it to him?"

"Because the doctor said to give it to him if he saw snakes, and so far he has only seen cats and white rats and spiders."—*N. Y. Times.*

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

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Editorials.

THE TREATMENT OF AGITATION AND INSOMNIA IN THE INSANE.

At the thirteenth congress of French-speaking alienists and neurologists, which met last August at Brussels, Dr. Trenel, Medical Superintendent of the Asylum of Saint Yon presented a report on the treatment of agitation and insomnia among the insane. This paper, abstracted by Dr. Laignel-Lavastine, appears in *La Presse Medicale*, August 29th, 1903. The author stated that the treatment of agitation and insomnia represented in reality nearly all the active therapeutics of mental alienation.

This therapeutics is multiple, and includes medicinal and physical agents.

Dr. Trenel reviewed the hypnotics—chloral, chloralimid, croton-chloral, chloral-urethan, sonnol, hypnal, chloralose, chlorotone, urethan, hedonal, methylal, hypnone, amylene hydrate, dormiol, sulphonal, trional, paraldehyde, opium, morphine, codein, narcein, papaverin, heroin, dionin, atropin, hyoseyamin, hyoscin, scopolamin, duboisin, cannabis indica, pellotin, ergotin, and bromide of potassium. He discussed the therapeutie value of each of them, its mode of action and indications. He afterwards described physical means of treatment, such as confinement to bed and baths of various kinds, viz., prolonged and permanent baths, cold baths, and the wet sheet. He showed that confinement to bed was efficacious, especially in simple mania. He did not think elinotherapy was to be depended on in precocious dementia, at least as a continued treatment. On the contrary, in the cases of patients affected with mental confusion, confinement to bed is obligatory; a similar practice is followed in the infectious psychoses.

The practice of giving prolonged baths, lasting six, eight, ten, or twelve hours, which was first employed in France, has been reintroduced into current practice, particularly in Germany, during the last five years. A practitioner can form an idea of the action of the prolonged bath by an examination of the blood pressure of a patient before and after immersion in the bath.

In agitated patients the blood pressure is generally lowered. During the bath it falls fifteen millimetres in fifteen minutes, after which it rises twenty millimetres in thirty minutes, and remains at that level for nearly two hours. It appears, therefore, that the bath produces an elevation of blood pressure in patients who are in a state of motor agitation. Cold baths are used in cases in which the mental disorder is manifestly of toxic origin, particularly in delirium tremens, according to Fereol and Letulle. Envelopment in a sheet wet with water of the same temperature as the air of the room and then wrung, has been recommended as a general treatment in mania and conditions of maniacal fury; but it exercises a very depressing effect on the heart, and cases are recorded in which the wet sheet has caused fatal collapse in patients, who did not have any organic lesion of the heart. Re-

plying to remarks made by gentlemen who discussed his paper, Dr. Trenel said that he had not referred to alcohol in the treatment of insomnia in the insane, because the literature of that subject was not sufficiently extensive for a complete study. He agreed with Richet that chloralose was capable of producing attacks similar to those resulting from the use of strychnine. He had given up electro-therapy as a general means of treating the disorders referred to in his paper. He favored the confining of insane patients to bed, from a theoretical standpoint, but had not a large enough staff to apply it in practice.

From an hospital point of view, the confinement of insane patients to bed is marvellous; to apply it in practice the number of attendants is generally insufficient. To carry it out it would be necessary to organize a special corps of attendants to watch the patients. Confinement to bed should not be continuous, because patients confined to bed lose weight. The solitary confinement of the insane has been discredited in France. In Germany, after four years of prolonged discussions, an eclectic system has been adopted. Continued solitary confinement is bad; practised for a time it is good. The suppression of the solitary cell would be absurd, because patients ask for it. "They feel their agitation." The solitary cell has not only changed its name, but its character as well. It is now a room, and not a dungeon.

J. J. C.

OPENING OF THE NEW MEDICAL BUILDING OF THE UNIVERSITY OF TORONTO.

THE new medical building in connection with the University of Toronto was opened with great ceremony on the 1st of October last. In honor of the occasion the University invited a number of distinguished men of the medical profession from Britain and the United States, as well as Canada, to inspect the new building. They were entertained to luncheon in the University Building by Dean Reeve, attended the formal opening in the afternoon, and in the evening listened to the opening lecture of the session by Professor W. Osler, of Johns Hopkins University. Among the distinguished physicians from abroad, who were present at a public meeting held in the afternoon in one of the theatres of the

new building, were C. S. Sherrington, Professor of Physiology, University of Liverpool; W. H. Welch, Professor of Pathology, Johns Hopkins University; R. H. Chittenden, Professor of Physiological Chemistry at Yale University; A. C. Abbott, Professor of Hygiene in the University of Pennsylvania; J. P. McMurrich, Professor of Anatomy in the University of Michigan; L. E. Barker, Professor of Anatomy at the University of Chicago; Roswell Park, Professor of Surgery in the University of Buffalo; William Osler, Professor of Medicine in Johns Hopkins University; W. W. Keen, Professor of Surgery, Jefferson Medical College, Philadelphia; Professor Townsend Porter, of Harvard University. McGill University, Montreal, was represented by T. G. Roddick, Dean of the medical faculty, and J. G. Adami, Professor of Bacteriology; Queen's University, Kingston, by Senator Sullivan, Professor of Anatomy.

Addresses of a congratulatory character were made by several of these gentlemen. The time-honored opening lecture, which was delivered by Dr. Osler, at the University Gymnasium in the evening, was a fine effort, fully equal to the reputation of the speaker. Among his more important recommendations, Dr. Osler favored the absorption of Queen's University, Kingston, and the Western University, London. He urged that they might be made clinical schools in affiliation with the Provincial University.

President Loudon showed his appreciation of the victory won over Trinity Medical Faculty, by asking their representative, Dr. Temple, to speak. The latter said that federation was a bitter pill to swallow, its redeeming feature being that it tended to the elevation of the profession.

The opening of the new building was certainly notable: for, to quote Dean Reeve, it was "a double consummation: the completion of a building which, for the first time, embodies certain new principles of construction, and the union of Toronto and Trinity Medical Schools." We hope that the new medical faculty will show they can do more than join hands. A university faculty, be it never so strong, cannot provide a student with intelligence and a love of science for its own sake. Success in study must ever depend upon the individual himself, and a medical genius may be said to be one who exhibits an extraordinary capacity for un-

flagging effort. Work always tells, particularly when the worker has brains to direct his energy. A richly-endowed university and a well-trained medical faculty can, however, render material assistance to clever students, enabling them to devote some time to research work before beginning the struggle for existence in the practice of medicine. Perchance such assistance may yet yield a rich return to Canadian medicine. Without derogating in the slightest from the usefulness of the professor who works exclusively in his laboratory, we confess to a closer kinship with the general practitioner, whose efforts in preventive medicine are inspired by actual friction with grave diseases. A good laboratory training, however, is useful to the general practitioner and often helps to bring to fruition such seeds of discovery as lie dormant in him. Laveran, Koch, and other lesser lights in the medical firmament of to-day, probably owe much to the habits of patient investigation formed in the laboratory during their student days. We heartily wish success to the new venture, and hope that it may be prolific in good works.

J. J. C.

EDITORIAL NOTES.

Importance of Teaching Cleanliness to School Children.—

In contending with communicable diseases, the school population counts for a good deal. In Toronto, where there is a Public School population of 34,488, and a Separate School population of 5,072, the aggregate is 39,560, almost a fifth of the city's population. To these might be added a considerable number of pupils attending various private academies and colleges. After a vacation of two months, they have been assembled in school buildings, not always the best suited for such a purpose, and with them, in some cases, they bring the seeds of the communicable diseases. The poisons of measles, whooping-cough, chicken-pox, mumps, and even diphtheria, scarlet fever, and tuberculosis, are present in the mouth or nostrils, and it is probable that in such cases one of the chief vehicles of contagion is the secretion of the mouth and nose. Much can be done to prevent contagion among scholars by teaching habits of cleanliness, and the teacher should notice and correct violations of these rules, as well as ordinary school regulations. School children should be taught cleanliness, decency, and good manners, as well as reading, writing, and arithmetic.

Smoke By-law in Toronto.—A smoke by-law was passed on the 5th ult. by the Toronto Council, and will go into effect on July 1st, 1904. The by-law reads as follows: "All manufacturers and others in the city of Toronto using combustible material to produce heat or power, and thereby creating smoke in such quantities as to foul the atmosphere, or that may be carried by the wind or otherwise to other shops, houses, or premises, to the inconvenience or injury of the neighboring premises or residents therein, shall have such chimney or other apparatus as shall consume the smoke, or prevent the same from fouling the atmosphere, or being carried by the wind or otherwise to other shops, houses or premises, to the inconvenience or injury of the neighboring premises, or residents therein." The penalty for infringement of the by-law is a \$50 fine, or six months' imprisonment. The only practical plan of preventing the black smoke nuisance is to compel stokers to use care and discretion in feeding the fires in the furnaces they attend; but, as stokers are only human and prone to negligence like the rest of mankind, it looks as if the enforcement of the above by-law would entail a large crop of fines. The by-law is well meant, however, and will certainly do good. Instead of polluting the atmosphere with black smoke without stint, the stoker will have to take some trouble in stoking his fire; but, if a fine is imposed on a stoker for discharging too much black smoke from the factory chimney, his employer will probably have to pay the fine.

Glycosuria and the Pituitary Body.—In "Archives gen. de Medecine," 1903, p. 1102, Drs. P. E. Launois and P. Roy study the relations of glycosuria with pituitary tumors. In a table these authors abstract reports of sixteen observations made on patients affected with acromegaly and diabetes, and upon whose bodies necropsies had been made. In these sixteen cases a pituitary tumor was invariably discovered. Proceeding further, they study the pathogenesis of glycosuria in patients who have a tumor of the pituitary body, and sum up as follows: (1) Dallemagne, Hausemon, and Pinely found concomitant lesions of the pancreas, and Dallemagne also found lesions in the ependyma of the fourth ventricle; but these coincidences are rare and exceptional. (2) Glycosuria would seem to depend on a disorder of the internal secretion of

the pituitary body. Arnold Lorand says, that "diabetes is but a symptom of a disease of the blood glands," but the adenomatous nature of the tumor habitually causes hypertrophy and excess of function. On the other hand, the histological researches of Caselli and de Launois do not enable us to admit that a special glycogenic nervous centre exists at the site of the pituitary body. Without being as affirmative as Lœb and Caselli, the authors adopt the third hypothesis proposed by Lœb. (3) Glycosuria is the consequence of compression exercised by the glandular tumor on the neighboring parts of the encephalon: a compression exercised on a glycogenic centre situated in these regions, probably in the "tuber cinereum." Lœb's clinical cases go to prove the theory: disappearance of the pituitary tumor by retrogression and simultaneous disappearance of the glycosuria: alternate repletion and depletion of certain tumors, followed by alternate periods of glycosuria and non-glycosuria.

An Historical Study of Plumbism in its Physiological, Clinical and Prophylactic Aspects by Dr. G. Meilliere.—This author writes a thesis (abstracted by Leo MacAnliffe in *La Presse Medicale*, 9th September, 1903), which is not a mere compilation, but gives the results of several years of study of lead poisoning. It does not suffice, in his opinion, to discover the presence of a poison in an organ, after separating the foreign body from the tissues which hold it. The poison must be followed in its successive migrations, taking advantage of the assistance rendered by histology. A poison must be characterized not only by its physical and clinical reactions, but also by its physiological properties. Henceforth this is to be the main object of toxicology. Dr. Meilliere says that lead is very generally absorbed by the digestive passages, and that it afterwards passes into the circulation, but does not remain there, for it is soon arrested in the liver, if the functions of that organ are intact. The hepatic gland and all the annex glands of the digestive tube, absorb the poison, no matter how it is introduced into the body and eliminate it through the bile and the other secretions. If the digestive function is normal, or is used at the proper time, the greater part of the lead eliminated by the digestive tube is carried off by the feces, but a portion of it is always absorbed. "In this respect," says Dr. Meilliere, "the analogy between lead and mercury is complete." Lead

localizes itself for a brief period in the blood-forming and lymphoid organs. It fixes itself in a stable fashion in the bony skeleton, and on the gray substance of the encephalon, a fact which appears to confirm the theory based on the central origin of nervous disorders provoked by lead poisoning. Visible parts of the body retain lead from the beginning of the intoxication, and its localization enables the practitioner to discover doubtful or misunderstood impregnations with this poison. Lead is eliminated in small quantities by most of the secretions: urine, saliva, sweat, and the bronchial mucus. Dr. Meilliere thinks that the organs of all persons contain slight, but discoverable, traces of lead. He does not think that lead, like arsenic and iodine, is a constant element necessary for existence, but that it is an element accidentally introduced into the organism, and tolerated more or less by it according to conditions which are not yet understood.

A Campaign against Ankylostomiasis.—Ankylostomiasis, which is not unlike idiopathic anemia, is due to the presence in the intestine of a nematode worm, *Ankylostoma duodenale*, which sucks the blood from the duodenal walls. The disease occurs chiefly in bricklayers, miners, and navvies. The extract of male fern and thymol are the best specifics. As these preparations have to be administered in rather large doses in order to secure curative effects, the patients taking them require medical supervision. Besides the excreta of the patient should be examined for the parasite. All who have studied the subject agree that the greatest watchfulness and a rigid control of the patient are necessary if a cure is to be effected. In order to obtain the necessary conveniences for making a microscopic diagnosis, and applying scientific treatment in cases of ankylostomiasis, Dr. Malvoz, of the Bacteriological Institute, Brussels, has succeeded in interesting the Provincial authorities, and the powerful industrial association, "The Union of Coal Mines of the Province of Liege," in a project for organizing an hospital for the treatment of ankylostomiasis. This plan works more satisfactorily than the dispensing of vermifuges to the miners, who used to take the medicines at their own homes. The Liege Hospital, which has now been in operation for several months, is established in a villa situated in a large garden in the vicinity of coal mines, where ankylostomiasis has been very frequently observed. It differs from anti-tubercular sanatoria

in that the patients are only kept in the hospital during the time necessary for the administration and the subsequent supervision of the operation of the medicines required in the treatment of the disease. Already nearly a hundred patients have been treated in this hospital. Not only is it an indispensable institution for the scientific cure of ankylostomiasis, but it also exercises a prophylactic action as well. As each female ankylostoma lays every day several thousands of eggs, each of which becomes a larva at the bottom of a damp mine—a larva which is capable of becoming an ankylostoma in the intestine of him who swallows it—one understands that in these conditions the isolation of the patient until he is cured is an important preventive work. During their stay in this hospital, the patients learn the nature of the ankylostoma, how the disease is acquired, and, in particular, what measures of cleanliness and what precautions are necessary for them to take in order to be protected against it. After leaving the villa, they naturally become propagandists of the cure, and instruct their comrades.

J. J. C.

PERSONALS.

THE Lady Superintendent of the Toronto General Hospital issued invitations for the graduating exercises of the class 1903, which were held in the amphitheatre of the hospital on Friday evening last, October 30th, after which a reception was held at the nurses' residence.

DR. GEORGE W. ROSS, the son of Hon. Geo. W. Ross, left the last week of September for the old country. He will walk the hospitals of Edinburgh and Leipzig for two years. The Premier, Miss Ross, and a number of friends were at the station to say good-bye, and to wish the young physician success.

AT a meeting of Queen's University trustees held on the 16th ult., Dr. J. C. Connell, M.A., Kingston, was appointed Dean of the Medical Faculty in succession to the late Dr. Fife Fowler. Dr. Connell is a specialist in diseases of the eye, ear, throat, and nose, and has an extensive practice in Eastern Ontario.

DR. MACDOUGALL KING, formerly of Toronto, and now of Denver, Colorado, has been appointed, instructor in physiology

in the medical department of the University of Denver. He graduated in medicine from the University of Toronto in 1902, and served with the Canadian Field Hospital Corps in South Africa.

DR. WILLIAM BAYARD, the Nestor of the medical profession of St. John, N.B., celebrated his ninetieth birthday on August 22nd. Many called to congratulate him, and he received numerous valuable presents. Telegrams came from Canadian and United States friends, and five congratulatory cables were received from England. Dr. Bayard has been more than sixty years a physician, and is still in active practice and excellent health.

DR. CHARLES R. DICKSON, of Sherbourne Street, attended the thirteenth annual meeting of the American Electro-Therapeutic Association at Hotel Windsor, Atlantic City, N.J., and afterwards enjoyed a two days' cruise from Bordentown, N.J., to New York, *via* the famed Raritan Canal and Hudson River, as the guest of Dr. Emil Heuel, of New York, on his handsome launch, *Amrita*. A week was spent in New York, investigating recent developments in radio-therapy, before returning to Toronto.

At the Hospital Fund meeting recently at the Mansion House, London, Sir Frederick Treves finished a capital speech by a story which elicited from that decorous audience rounds of cheers as if it were Jean de Reszke at the opera. Holding up a 20-groat piece, he told how he had successfully operated at the London Hospital on a Norse sailor unable to follow his calling. The grateful patient found the surgeon's private address, made a polished speech of thanks, and begged him to accept that coin, not as payment, but because his wife, three years before, had sewn it in his belt, to use only when starving. After recovery he had wandered in search of a berth, and really hungered before he found one. Sir Frederick accepted it, and now considers it his choicest memento of a patient's gratitude.

Beds Endowed at Roosevelt Hospital in Honor of Dr. Jacobi.—Four beds at the Roosevelt Hospital have been endowed in honor of Dr. Abraham Jacobi, until last year the professor of children's diseases at the College of Physicians and Surgeons.

Obituary

R. A. BUCK, M.D.

Dr. R. A. Buck, of 195 Dunn Avenue, Public School Trustee, died at his residence, from illness which had its inception about eighteen months ago, when he suffered a paralytic stroke. Though he had been around since then he did not practise. He continued to attend the School Board meetings until two weeks before his demise.

Dr. Buck was about forty years of age, and leaves a widow but no family. He was elected to the Public School Board in 1896, and had been a member continually since. In 1899 he was chairman of the Management Committee, and he held a similar position in the Property Committee in 1901, 1902, 1903. While Chairman Godfrey of the Board was absent in Europe this summer, Dr. Buck was selected to fill the vacancy. He presided at the School Board meeting on September 2nd, and attended a meeting of the Management Committee on September 13th.

He was a Presbyterian by faith, and attended Dunn Avenue Church. In politics he was a Conservative. Some years ago he owned a drug store in Parkdale.

JOHN BOSTWICK LIMDH, M.D.

Dr. JOHN BOSTWICK LIMDH, the oldest medical practitioner in Preston, died August 20th, as a result of paralysis. Dr. Limdh was in his seventy-eight year, and was born in the Township of Whitechurch, York County, coming of Quaker stock. He attended school in Picton and Lewiston, and graduated in medicine from Buffalo and Toronto Universities. After practising for a year in Baltimore, he came to Sheffield, Besterly Township, in the early fifties, and soon had a large practice. The confidence he then gained, he enjoyed throughout his life. A quarter of a century ago he moved to Galt, and fifteen years ago came to Preston, where he has since been living a retired life.

LOCHLIN C. SINCLAIR, M.D.

DR. LOCHLIN C. SINCLAIR, of Tillsonburg, died August 21st, in his sixty-fourth year. Dr. Sinclair was one of the best known and most successful physicians in the Talbot district. He was a public-spirited man, always ready to advance a good cause, political or social, an upright man in the fullest sense. He opposed John Charlton on one occasion as the nominee of the Conservatives for the House of Commons, and polled a large vote, though defeated.

SAMUEL RICHARDSON, M.D.

DR. SAMUEL RICHARDSON, a well-known physician of Detroit, Mich., died September 3rd, at St. Mary's Hospital, after a lingering illness.

Dr. Richardson was born at Scarboro', Ont., 58 years ago. In 1874 he graduated in arts from the Toronto University, and a year later graduated in medicine from the Toronto School of Medicine. For ten years he practised his profession in Essex County, Ont., and then moved to Detroit, where he had lived ever since. Besides his widow, he is survived by a brother John, of Toronto, and three sisters.

❧ *News of the Month.* ❧

THE OPENING OF THE NEW MEDICAL BUILDING OF TORONTO UNIVERSITY.

DEAN REEVE, the Senate, the Professoriate and the students are to be congratulated upon the completion of so spacious and well-equipped a medical building. Its opening occurred at the opportune moment when old Trinity and Toronto Universities, had just decided, after the usual lovers' quarrels, to join heart and hand. Amid new surroundings and under the happiest auspices may the medical students of Toronto University press forward in the field of medical knowledge, and attain unto the goal of ambition of this new century of progress—Discovery.

At the opening ceremonies an "absent" presentation of the key of the building was made on behalf of the Trustees, by Dr. Hoskin to President Loudon. Although the audience saw nothing tangible handed over by Dr. Hoskin, he brought to their "mortal minds" a vision of a key made of gold and studded with diamonds, and none of the array of physicians present objected to this form of Christian Science treatment, as a key of gold had unlocked the portal that admitted them to the real and practical study-temple of "Science and Health." The audience filled to overflowing the theatre, and relieved its severity by the brilliance and variety of color represented in the vestments worn by distinguished guests from universities abroad, next door, and members of the profession at home. It was interesting to observe the contrast of facial expression and feature among those present, and a lesson to our eye specialists, that with few exceptions the grand old men regarded life calmly and steadily out of the eyes Mother Nature had equipped them with, while the younger ones magnified the ills that flesh is heir to by lenses, gold-mounted, sitting astride their noses. No wonder some wise ones call this a pessimistic age.

Prof. Sherrington's address was elegant in diction, a delight to listen to, its beauty enhanced by his clear enunciation. A report in full of his address appears in this issue. In rapid succession speaker followed speaker. One of the members of the staff of this journal, who has Methodistic tendencies, said it reminded him of an experience meeting—a word of good cheer from a dozen or so representative men from across the border and from

distant Canadian universities. Every moment was devoted to the edification and strengthening of the brethren. Forms of expression, dignified, witty, or broadly humorous, made the building resound with applause or ring with laughter. Among the distinguished speakers were Prof. W. H. Welch, of Johns Hopkins, who warmly congratulated the University on the laboratories, which would greatly increase its usefulness. He thought it was extraordinary that the medical faculty should have started as co-ordinate with the others, and that there was a drift into proprietary medical schools, and he was not quite clear why there should be any half-educated doctors. But the time has come when medical science is recognized, and he drew attention to the municipal campaign now going on in New York, which hinged on questions of public health.

Prof. Townsend Porter, of Harvard, read congratulations from Prof. Bowditch, of that university, declaring that the importance of the movement for increased facilities for scientific investigation could not be easily calculated, and that it might result in transferring to the Western world the home of medical science. He referred in warm terms to the investigations at McGill, which had resulted in a revolution in the conception of matter. There is a danger, however, that the pendulum may swing too far towards laboratory work, and for this reason Harvard recently revised its curriculum to distinguish between the essential and the desirable. The result was that they condensed the work absolutely necessary for a first-class practitioner to three years, and left the men for elective work for specialties in the fourth year. He referred in laudatory terms to the "unit" system, which characterizes the architecture of the building, and said that it would be followed in the buildings now in course of erection at Harvard.

Prof. Chittenden, of Yale, warmly congratulated the university on its progress in physiological chemistry under Dr. A. B. Macallum, and held it was a legitimate part of the study of physiology and ought not to be divorced from it.

Dr. Roddick, of McGill, said that that institution had also recently done pretty well, having received \$100,000 for the medical building from that grand old Canadian, Lord Stratheona. They had made good use of it, and in fact run into debt, but he felt that there might be another cheque forthcoming. The amalgamation of the two medical schools at Toronto was a step in the right direction, but he urged that the idea should go further. There should be a general federation of the universities of Canada, especially in the matter of matriculation, which should be uniform.

Prof. J. P. McMurich, of the University of Michigan, as

an old student and graduate, was especially glad to extend his congratulations. He thought, however, President London had omitted one strong argument for university endowment, and that was the enormous contributions to the country by research work in physiological laboratories. One single discovery, and there were many such instances, was sufficient to repay the whole cost. The stimulus of their new laboratories, he thought, could hardly be over-estimated.

Prof. Barker, of the University of Chicago, as an old student and a graduate in medicine, was pleased to extend congratulations from 130,000 Canadians in that city looking to Canada for stimulus in the matter of education. The most notable feature of the new building, he thought, was the provision for research work, and he almost concluded that the architects, when in doubt about the use to which to put any corner of the building, said, "Oh, put in a research room."

Senator Sullivan, of Queen's University, said that in Kingston they were between two powerful and wealthy institutions, Toronto and McGill, but the Government has a surplus of millions, and the east can well help Toronto if necessary to go up to the elbows into the public treasury.

Congratulations were also extended by Prof. Roswell Park, of the University of Buffalo, and Prof. A. C. Abbott, of the University of Pennsylvania.

So much *en rapport* with the speakers was the audience that even the Sage of the Grange, of whom every Canadian is proud, and justly so, warmed up and relaxed into a smile, and joined in the general laughter, when Dr. Roswell Park, of Buffalo, said he hoped they would be so successful in their research in the new laboratories that some brilliant student would discover the formula of Paddy's poison, "one drop of which on the cat's tongue would kill a man." All Toronto men, former students and old professors, longed to give the glad hand to the Toronto boy, back for a day from his chair in the University of Chicago, Prof. Barker. What a pity 'tis there is not a place for such as he here at home, with his mobile face, his simple, effective way of saying his word or two, and his high ideals. We are letting these fine young men slip away from us, Canada needs them. Shall they, like "the youth who daily farther from the East must travel," perceive their "vision splendid" of high ideals "die away and fade into the light of common day"—swept into the overpowering vortex of the commercialism of the West?

Prof. Osler, of Johns Hopkins University, delivered the opening lecture to the students, in the evening, in the Gymnasium. The address appears in full in this issue.

With a quill for a goblet, and ink for its wine, may the

CANADIAN JOURNAL OF MEDICINE AND SURGERY scribble a toast to the Professoriate of the united Medical Faculties of Trinity and Toronto Universities. May their union ever be a Truce, and their future success a Triumph.

W. A. Y.

ANNUAL CONVOCATION OF TORONTO UNIVERSITY.

THE annual convocation of Toronto University took place at the gymnasium on the afternoon of October 2nd. The feature of the occasion was the conferring of the honorary degree of LL.D. upon five of the distinguished medical scientists then in the city. Prof. William Osler, of Johns Hopkins University, Baltimore, was presented for the degree by Prof. Ramsay Wright; Prof. Sherrington, of the University of Liverpool, by Prof. MacCallum; Prof. Welch, of Johns Hopkins University, by the Dean, Dr. R. A. Reeve; Prof. Keen, of Jefferson Medical College, by Prof. Irving Cameron; and Prof. Chittenden, of Yale University, by Prof. McPhedran. The degree was also conferred "in absentia" on Prof. Bowditch, of Harvard.

That morning at the new Medical Building, addresses were delivered to the third and fourth year classes by several of the most distinguished scientists present.

Prof. Keen, of Philadelphia, read a most interesting paper, in which he specially urged the students when they became practitioners to keep up-to-date, and keep books and records that would be of service to them for reference in diagnosing difficult cases.

The veteran Prof. Welch, of Baltimore, reviewed the history of pathology, showing how the growth of knowledge of physical life had proceeded first by generalization, followed by demonstration all through the century. He paid a high tribute to Virchow, who had reduced the theory of cellular life to fact; and also to Pasteur, who had done inestimable service by his investigation in the causation of disease, and his discoveries of parasitic organisms in the human body. Koch's creation of a simple technique of pathology had also led to many great discoveries. He assured the students that a scientific interest in pathology would add greatly to the interest and pleasure of their lives as practitioners.

Prof. Adami, of McGill University, combated the reaction against scientific teaching. He said that old physicians were prone to scorn the young cub who was well up on great names, but who could not diagnose a case of livers. As an outsider, he held that the educational system of Ontario might be better and might be much worse, but in Ontario the child from its cradle was taught to look up to the principle of authority. He had "authorized" text-books, and was expected to regard the written

word with awe. He warned students that if they stood solely upon the written word, their future careers would be broken ones. The physician should regard each case as a problem, and should deal with it as a rational being, not as an automaton. He paid a high tribute to the preliminary training in biology given at Toronto University, and said it was what enabled her to send out so many specialists to American universities. Prof. MacCallum's work in investigating the physiology of the cell blazed the future path of pathology.

The last speaker was Prof. Abbott, of the University of Pennsylvania, who gave an address which should be printed and hung up in the library of every doctor in Ontario. Dr. Abbott has been lately engaged in public health work in the corrupt city of Philadelphia. He said that the aim of every student should be to carry on the work of public health. They should realize that every physician who rightly understood his obligations was part of the organization for the improvement of public health. In Philadelphia they had been trying to give the people pure water, and to stamp out typhoid fever, for which the city was famous. Not long ago they succeeded in giving filtered water to two wards, and yet to their chagrin typhoid broke out worse than ever. They were ridiculed, but on investigation it was found that two milkmen, serving thousands in those wards, had each several cases of typhoid in their homes. And these cases, imperilling the lives of thousands, had been unreported by the attending physicians. He urged that the students study as a text-book the health regulations of the Province of Ontario.

PROFITABLE INVESTMENT FOR CANADIAN PHYSICIANS.

Now that a large number of members of the profession throughout Canada, especially, have decided not to invest further in Wall Street securities, most having been effectually "bitten" in that market, it is most opportune that they should turn to a different kind of investment for their surplus funds, one in which they are guaranteed ample return for their money. The investment referred to is the bonds of the Consolidated Ubero Plantations Co., Boston, Mass., which are even now commanding a premium. The bonds are issued in coupon form, with the privilege of registration as to principal. Each \$500 bond carries with it \$400 in stock as a bonus, due July 1st, 1912, with interest payable at the International Trust Co., Boston, Mass.

The business of the company is the growing and marketing of all tropical products, including oranges, lemons, grape and other citrus fruits, yucca, coffee, rubber and pineapples in the

richest agricultural district of Mexico, on the Tehuantepec National Railroad, equi-distant from the Gulf of Mexico and the Pacific Ocean.

The years of development work done on these properties has more firmly established the business and consequently increased the profits. For this reason the cash valuation of the property which was conservatively held one year ago at \$1,011,062.50, at the present time inadequately represents its valuation—and naturally has increased the value of all bond and stock holdings. Therefore the original offer of one \$500 bond to include an equal amount of stock (\$500) is manifestly unfair to old holders of securities who first purchased, and the amount of stock bonus given to new purchasers has been decreased to \$400.

The company now offers \$1,500,000 ten year 6 per cent. first mortgage sinking fund gold bonds on the following basis: Five hundred thousand dollars (\$500,000) of this allotment for cash and the remaining one million dollars (\$1,000,000) in forty-five monthly payments. Each payment as made is secured by issuing the purchaser a 6 per cent. First Mortgage Sinking Fund Gold Note. These notes recite on their face that when a purchaser has \$500 worth he may exchange them for one (1) \$500 6 per cent. First Mortgage Gold Bond at the International Trust Company, Boston, Mass., and receive at the time of exchange \$400 in stock.

The bonds are secured by a first mortgage on all the assets, real and personal, including 6,000 acres of land, 1,600 of which is under cultivation, a general store, merchandise, residence, administration building, starch mills, pineapple cannery, bank, tin can factory, laborers' quarters, warehouses, live stock, mules, cattle, etc., together with all the necessary equipment and machinery to carry on the business of the company.

The directorate is composed of seven prominent business and banking men of the U.S. and Mexico, among whom are Arthur W. Stedman, of the firm of Geo. A. Alden & Co., importers of crude rubber, Boston; Judge V. Z. Wiley, Chief Justice of the Appellate Court, Indianapolis, and Hon. Senor Thomas Moran, member of the House of Deputies, Mexico City. The company has also an advisory board of twenty-one representative business men of the U.S., including such men as C. W. Rider, of the Merriek Thread Co., of Holyoke, Mass.; Frederick Tudor, Jr., Treasurer N. E. Gas and Coke Co., of Boston; D. Webster Dougherty, Attorney, Philadelphia; H. C. Wettengel, Cashier, Diamond National Bank, Pittsburg; Hon. C. J. Pedder, Pittsburg, and Remi Tremblay, member of the House of Commons, Ottawa, Canada.

Actual Profits Paid.—On July 1st last, the company redeemed nineteen of its bonds (\$500 each with interest on same for the

time the money was in the hands of the company); paid 6 per cent. interest on all bonds outstanding and 3 per cent. dividends on the stock.

INFANT MORTALITY.

THE presidential address at this year's annual meeting of the British Medical Association is in the main a survey of the splendid progress of modern antiseptic surgery, with which the honoured name of Lister will always be inseparably associated. But the deliverer of this address, Dr. T. D. Griffiths, felt bound incidentally to refer to one or two weak spots in a manner which should certainly compel public attention. He dwelt, for instance, upon the fact that the middle classes, for whom the hospitals are not intended, are dependent commonly for surgical treatment upon private nursing homes, most of which are run for profit. Many of these institutions, Dr. Griffiths declares, are sadly inferior, both in the surgery and in the nurses they supply, and he asserts that, with a view to efficiency, a reform is necessary which should include support either by public money or by the munificence of benefactors to the elimination of the private profit element. Dr. Griffith's strictures apply equally well to Canada as to England, for it cannot be disputed that the system of more or less irresponsible private nursing homes here as well as there does not fit into the medical ideal any more than more or less irresponsible private schools fit into the ideal of the educational reformer.

Very striking, indeed, is Dr. Griffith's statement as to the huge and unnecessary annual waste of infant life. While the general mortality of the community has diminished during the last thirty-six years, he points out that infant mortality has increased, and he declares that no fewer than 60,000 babies die in England every year whose lives could be saved, and should be saved by modern improvements in the way of sanitation. It is a startling statement for which Dr. Griffiths, of course, is responsible: but even the layman can see some of the reasons which have tended to keep infant mortality at a high level. The very fact that mortality among adults has diminished has some effect in this direction. No doubt weaklings have been kept alive who would have died in earlier generations, and their offspring are naturally not of the sturdiest.

A grim factor, of which we have had samples in Canada, and to which many will point, is that of child insurance. But it can hardly be maintained that these are the principal causes of the ill-omened phenomenon. The increase of drinking habits among women, to which frequent attention has been drawn, cannot be

left out of the reckoning. The child of a drunken mother is only too likely to be a puny baby at best, and, even if it should not be overlaid, it has an almost certain prospect of underfeeding and neglect. Education can be depended upon to do much to reduce the death-rate among children. As ignorance among mothers as to feeding, cleanliness, and the like, diminishes, the children's chance increases. But we fear that infant mortality can never be really low while the crowding into the towns continues. In the close confinement of the poor quarters the fresh air and healthy surroundings that babies need are still unobtainable.—Editorial, *The World*, Toronto.

MEDICAL TEACHING AT TORONTO ISOLATION HOSPITAL.

THE local Board of Health decided on October 7th to recommend that students from Toronto University Medical College desiring instruction in the treatment of contagious diseases be admitted to the City Isolation Hospital. A deputation addressed the Board on the subject.

Dr. McPhedran, the first speaker, dwelt on the importance of Toronto, a great educational centre, providing all branches of medical instruction. Dr. Oldright, in supporting the application, said there were many instances on record of the spread of contagious disease, through lack of knowledge as to treatment on the part of young practitioners.

In reply to Ald. Lynd, as to whether or not students should be charged for the instruction asked for, Dr. McPhedran said he thought not, as the students were a benefit to the city through the money they expended in board, lodging and clothing.

"Will Dr. Sheard be paid?" asked Ald. Lynd.

"For years he has always been paid as a professor of the Medical School, and will be paid for his services at the Isolation Hospital," replied Dr. Oldright.

"Speaking from a purely economic standpoint," said Dr. McPhedran. "I may say that the city is benefited to the extent of \$1,500,000 a year by the presence of the Medical School."

President London, of the University, said that if the question of compensation was to be considered, he thought the Provincial Government might make a grant to the Isolation Hospital.

Ald. Noble then moved that students be admitted to the hospital for instruction.

Dr. Sheard suggested that it should be understood that all such students should be under the supervision of the Medical Health Officer. He added that the question of fees was a new feature but he thought in the event of students from the Woman's Medical College seeking admission, a fee should be charged.

It was the opinion of the members of the Board that the question of fees could be satisfactorily disposed of when the details were worked out.

Dr. Sheard explained that rubber coats and other protective material would have to be purchased.

"I think the University authorities, or the students themselves, should buy the necessary clothing," said Ald. Noble.

The Board finally decided to adopt Ald. Noble's motion and instruct Dr. Sheard to charge each student a fee of \$5 to cover the cost of the necessary protective clothing.

THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

THE thirteenth annual meeting of the American Electro-Therapeutic Association was held on September 22nd, 23rd, and 24th, at Atlantic City, N.J., in Hotel Windsor; the Marine Room with its nautical fittings and ocean outlook, made an admirable meeting hall. In point of attendance, new members, scope and interest of papers and discussions, the meeting was one of the best in the history of the Association. Dr. Daniel R. Brower, of Chicago, made a capital president, and the secretary, Dr. Clarence E. Skinner, of New Haven, Conn., was simply indefatigable.

The recent death, on August 28th, of Dr. Robert Newman, of New York, a chartered member and tireless worker, cast a gloom over the entire proceedings. As a tribute to his memory, the president's gavel was draped in mourning, and his address alluded most feelingly to the deep loss which the association had sustained. In responding to the Mayor's address of welcome, Dr. C. R. Dickson, of Toronto, expressed the sorrow of the Association; Dr. G. Betton Massey, of Philadelphia, pronounced a fitting eulogium, and on motion of Dr. Dickson, a committee was appointed and drafted appropriate resolutions.

Several instructive reports were presented by the standing committees on scientific questions. The programme contained thirty-four most interesting papers which were very fully discussed, and an innovation which proved highly successful was a suggestion of Dr. C. R. Dickson, viz., Problems in Electro-Therapeutic Practice: a general discussion. Members were invited to submit difficulties arising in practice, on which information or advice was desired, and to offer suggestions as to the solution of such problems.

The entertainments included an exhibition drill of the crew at the Life Saving Station, a visit to the United States Signal Station, and a reception given by the medical profession and Academy of Medicine of Atlantic City at the Marine Room.

The following officers were elected for the coming year: President, Dr. A. D. Rockwell, of New York, N.Y. First Vice-President, Dr. Willis P. Spring, of Minneapolis, Minn.; Second Vice-President, Dr. William W. Eaton, of Danvers, Mass.; Treasurer, Dr. Richard J. Num, of Savannah, Ga.; Secretary, Dr. Clarence E. Skinner, of New Haven, Conn.; Members of Executive Council, Dr. Francis B. Bishop, of Washington, D.C.; Dr. Daniel R. Brower, of Chicago, Ill.; Dr. Maurice F. Pilgrim, of New York; Dr. Frederick H. Morse, of Melrose, Mass.; Dr. Charles O. Files, of Portland, Me.; Dr. Ernest Wende, of Buffalo, N.Y.

A HOSPITAL FOR TORONTO UNIVERSITY.

At the conferring of the five degrees of LL.D. *honoris causa*, at the special convocation of the University held last month, the Government was urged by the visiting scholars to go a step further in its support of the medical faculty, and provide, in addition to the magnificent building, admittedly the finest in America, a university hospital.

Prof. W. W. Keen, of Philadelphia, started the agitation. He congratulated the faculty on the building, but added that medical science has not reached its limit. There are other worlds to conquer. There is the question of immunity from disease, the prevention of cancer, of typhus, of typhoid, of measles. It was not enough to stop at these new laboratories. The university must teach the students how to apply the remedies.

"You must, therefore," says Prof. Keen, "provide a complete university hospital under your own control, so that students may learn not only the different phases of disease, but the means of cure."

He went on to say that wards were wanted not only for the sick, but for those afflicted with diseases of a special character, and for whom an occasional visit, say once a week, might suffice.

In reply to the common objection that students should not be allowed to practise to the injury perhaps of the patients, he said that in forty years' experience at half a dozen hospitals he had never known a single patient who was injured or whose chances of recovery were lessened by the students at the bedside. The fact was that a poor patient in a public ward had often a better chance for proper treatment and for recovery than had a rich patient in the seclusion of a private ward. A college, a hospital, outdoor patients, a laboratory, are all parts of a great university.

He referred to the progress of science in Germany and other European countries, and to the post-graduate courses taken there

by Canadians, and asked, "Why should not that familiar label, 'Made in Germany,' be changed to read, 'Made in Canada?'"

Prof. Welch, of Johns Hopkins, emphatically endorsed the importance of a university hospital, and pointed out that it was due to such an institution largely that Johns Hopkins had reached its excellence. "Toronto University," he declared, "will not reach the height of its endeavors unless it has a hospital under university control."

Prof. Osler, of Johns Hopkins, Prof. Chittenden, of Yale, and Prof. Sherrington, of Liverpool, the other three receiving degrees, also spoke briefly.

RESULTS OF TORONTO UNIVERSITY FACULTY OF MEDICINE EXAMINATIONS.

Fourth Year.—The following have passed: J. W. Cook, D. Evans, W. S. Fawns, C. H. Gilmour, R. Hacking, R. B. Harris, L. R. N. Hess, C. F. A. Locke, C. M. MacKay, N. F. Sutton, D. M. Sutherland, A. L. W. Webb.

The following are required to pass supplemental examinations before completing the examination of the fourth year: Medicine—W. D. Beaton, J. A. Kane; Clinical Medicine—D. J. Cochrane.

Third Year.—The following have passed: R. W. Anderson, J. H. Bennett, F. E. Chalmers, J. W. Cook, E. G. Evans, W. S. Ford, P. J. McCue, F. F. McEwen, J. K. McGregor, R. Vansickle.

The following are required to pass supplemental examinations before completing the third year: Clinical Medicine—M. Galbraith, J. B. Swanston; Pathology—J. H. Cascaden, T. R. Henry.

Second Year.—The following have passed: Miss E. Beatty, F. E. Chalmers, H. H. G. Coulthard, W. G. Evans, R. Hacking, J. J. Hamilton, F. V. Hamlin, C. W. Murray, D. F. McLachlan, J. H. McPhedran, W. J. O'Hara, A. E. Schultz, G. Stewart, D. M. Sutherland, J. B. Swanston, R. W. Tisdale, S. Traynor, R. Vansickle, F. J. Walker, F. E. Watts, H. G. Willson.

The following are required to pass supplemental examinations before completing the second year: Anatomy—M. Galbraith, A. J. Gilchrist.

First Year.—The following have passed: D. Black, E. George, J. J. Hamilton, V. S. Kaufman, D. E. Robertson, H. T. Royce, F. J. Walker.

The following are required to pass supplemental examina-

tions before completing the first year: Theoretical biology—D. C. Balfour, K. Campbell, Miss E. A. Ewen, C. V. Jamieson, W. C. Pratt, R. W. Tisdale, R. E. Humphries; Physics—J. H. Jackson, J. A. Kane.

TRINITY TAKES ITS FINAL STEP FOR FEDERATION.

At a largely attended meeting of the Corporation of Trinity University on October 1st, presided over by the Bishop of Toronto, the final step was taken, so far as Trinity is concerned, towards the federation of Trinity University and the University of Toronto. That step was the execution of the instrument containing the terms of agreement for federation. The instrument was ten days later submitted to and adopted by the Senate of the University of Toronto and the Lieut.-Governor in Council, and the Provincial Secretary issued a proclamation that federation had been accomplished.

At a meeting on October 1st, a report of the recent litigation was submitted, along with the judgment of Mr. Justice MacMahon, dissolving the injunction. Then, upon the motion of Dr. J. A. Worrell, K.C., and Provost Macklem, a resolution was submitted setting forth briefly the steps already taken, stating that the terms of the agreement had received the sanction of the Bishops of Toronto, Niagara, Huron, Ottawa, Algoma and Ontario, and that the instrument embodying the terms of agreement had been executed by the trustees of the University of Toronto, and, therefore, instructing the Vice-Chancellor, Provost Macklem, to execute the instrument on behalf of Trinity University, and forward it to the Senate of the University of Toronto and to the Lieut.-Governor in Council.

Rev. Dr. Langtry and Mr. Wm. Ince opposed the resolution, and Lieut.-Colonel Halliwell, of Sterling, pleaded for delay. Dr. Langtry's was, however, the only vote finally recorded against it.

POST-MORTEMS ON BODIES OF INSANE.

A DEPUTATION of medical men asked Premier Ross a week or two ago to establish an institute of pathology with a laboratory attached, in connection with the asylum for the insane in this Province. The idea is to provide accommodation for such an institute in one of the asylums, say Toronto, and appoint a director who would have jurisdiction over all the asylums in the Province in this particular phase of the work. One or two rooms would be all that would be required, and the deputation figured that about \$6,000 a year would support the enterprise. It is claimed for the

scheme that by it a mass of information could be collected which would do much to solve the causes of insanity.

On the deputation were Dr. Arthur Jukes Johnson, Dr. Cassidy, Dr. Burkhardt, Dr. Herbert Bruce, Dr. Grasett, Dr. Ryerson, and John Richardson, M.P.P., who introduced the others.

Dr. Johnson explained the need of the institute. The bodies of inmates who die in asylums are now not subject to post-mortem examinations, excepting in rare cases. Dr. Johnson said that those inmates who were cared for at public expense should contribute something to the advancement of science after their death. Even in other cases, friends of insane people would not object to post-mortems, and they would be most anxious to learn, if possible, the causes of the derangement. The belief was becoming more firmly established that insanity was accompanied by structural changes in the brain. There was an undisputed demand for further investigation into insanity, and while there was lots of material in Canada to investigate upon, it was going to waste.

Dr. Burkhardt and others argued that Ontario ought to contribute its share to the cause of this department of science. Neighbouring States had departments similar to the one proposed.

The Premier said in reply that he would lay the matter before his colleagues, but that nothing could be done until a vote from the Legislature had been secured.

CANADIAN MEDICAL ASSOCIATION OFFICERS.

THE following are the names of the officers elected by the Canadian Medical Association for the ensuing year:

President, Dr. S. J. Tunstall, Vancouver, British Columbia.

Vice-Presidents—Prince Edward Island, Dr. S. R. Jenkins, Nova Scotia, Dr. Dewett, Wolfville. New Brunswick, Dr. Blair, St. Stephen. Quebec, Dr. F. G. Finley, Montreal. Ontario, Dr. A. McPhail, Toronto. Manitoba, Dr. J. A. McArthur, Winnipeg. North-West Territories, Dr. T. A. Patrick, Yorkton, Assa. British Columbia, Dr. R. L. Fraser, Victoria.

Provincial Secretaries—Prince Edward Island, Dr. A. E. Douglas, Hunter River. Nova Scotia, Dr. C. D. Murray, Halifax. New Brunswick, Dr. Crawford, St. John. Quebec, Dr. J. Olmstead, Hamilton. Manitoba, Dr. W. Rogers, Winnipeg. North-West Territories, Dr. Love, Regina. British Columbia, Dr. W. Bryhtonjack, Vancouver.

General Secretary—Dr. Geo. Elliott, Toronto (re-elected).

Treasurer—Dr. H. B. Small, Ottawa (re-elected).

Executive Committee—Dr. W. J. McGuigan and Dr. Lefevre, Vancouver, and Dr. Gibbs, Victoria.

A committee of six was appointed to arrange with the railways for the Vancouver meeting, and it was also resolved to ask the Dominion Government for an appropriation for the gathering.

A CHAIR OF ORTHOPEDIC SURGERY.

ACCORDING to a New York despatch, it is stated on the authority of a gentleman who is in a position to know that Armour, of Chicago, whose daughter Lolita was said to be permanently cured of congenital dislocation of the hips by Dr. Lorenz, of Austria, is to establish a chair of orthopedic surgery after the Lorenz school in at least one hospital in the leading cities of every State and territory of the United States and several in Canada.

Mr. Armour is so enthusiastic over the recovery of his little girl, and is so greatly angered at the attitude of some of the surgeons in his own country for the adverse position which they take on the subject of the restoration of Lolita Armour, that he is anxious to enable every parent in the country to secure for his children the opportunity that his own child had.

The method of founding the Lorenz chair, or, more properly speaking, beds, in the various hospitals has not been determined as yet, but it is thought that it will be in the shape of a donation of sufficient money first to have a surgeon taught in the specialty, and then to pay his salary thereafter at each hospital.

ITEMS OF INTEREST.

\$200,000 for a Sanitarium.—Pietro Cartoni, a well-known land owner, has given \$200,000 to found a sanitarium for consumptive patients in Rome, in memory of his only two sons, who succumbed to tuberculosis.

Polk's Medical Register.—The eighth revised edition of this well-known work is now under way, and will appear in due time. Send for descriptive circulars, and do not be deceived by imitators. Polk's Medical Register and Directory has been established sixteen years. R. L. Polk & Co., Publishers, Detroit, Mich.

Recently Appointed Coroners.—The following appointments as coroners were lately gazetted: Dr. J. A. Dickson, Hamilton, to be associate coroner; Dr. J. A. Hamilton, New Liskeard, to be associate coroner; Dr. E. T. Kellam, Mazura Falls, to be associate coroner; Dr. W. W. Thompson, Mazura Falls South, to be associate coroner.

Teeth of School Children.—A dentist of Germany states that out of 5,300 school children examined only 4.37 per cent. had sound teeth.

The College of Physicians and Surgeons, the medical department of Columbia University, opened on September 24th in Vanderbilt Hall, at Fifty-ninth Street and Tenth Avenue, with an address by President Nicholas Murray Butler, who then introduced Dr. Walter B. James. Dr. James spoke on "The Old and New Medicine."

Rush College Commencement.—At the quarterly convocation, held October 5th, twenty-two were graduated from Rush Medical College (Medical Department, Chicago University). The address was delivered by Prof. L. Sherrington, of Liverpool, England, his subject being "Localization of Cerebral Centres in the Ape." The lecture was illustrated by lantern slides.—*Jour. Am. Med. Assn.*

DaCosta's Sign.—The familiar little tin sign, loosely placed in the window and simply inscribed "Dr. DaCosta," was the only one this well-known clinician ever possessed. From frequent falls it had acquired such a worn appearance as to excite the notice of its owner, who remarked several months before his death, "The sign has done its work and the owner too; we will soon be gone together."—*Med. Book News.*

Medical Examination of Public School Teachers.—It is not unlikely that before long Boards of Education will require a certificate of good health from candidates before appointing them as teachers. A case in point occurred in Chicago this year, when the City Superintendent recommended that one of the teachers be not allowed to continue her work on account of having tuberculosis. The lady was a Christian Scientist.

The Clinical Thermometer in Poesy—Truly it is given to the poet to find "tongues in trees, books in the running brooks"—and poems in fever charts. One of the newly-published poems of Rudyard Kipling, "The Parting of the Columns," deals with the farewells of the soldiers who had fought side by side in the Boer war.

There isn't much we 'aven't shared since Kruger cut an' run,
The same old work, the same old skoff, the same old dust and sun;
The same old chance that laid us out, or winked an' let us through;
The same old life, the same old death. Good-bye—good luck to you!

Our blood 'as truly mixed with yours—all down the Red Cross train,
We've but the same thermometer in Bloemingtonphoidtein,
We've 'ad the same old temp'rature—the same relapses, too,
The same old saw-backed fever chart. Good-bye—good luck to you!

—*New York and Philadelphia Medical Journal.*

The Woman's Medical College.—The Woman's Medical College of Pennsylvania, the oldest woman's college of medicine in the world, opened September 23rd for the season of 1903-1904. Addresses were made by Dr. Clara Marshall, Dean of the College, and Dr. T. Turner Thomas. It was announced that, owing to the resignation of two members of the faculty, the vacant places in that body would be filled by Dr. Edith Warner Cadwalader, Professor of Obstetrics, and Dr. Ruth Webster Lathrop, Professor of Physiology and Hygiene. The Chair of Anatomy, vacated by the death of Professor William H. Parrish, will not be filled this year.

Medical Inspector of Schools for the District of Columbia.—The United States Congress has authorized Commissioner Macfarland to appoint twelve physicians, at a salary of \$500 each per annum, as Medical Inspectors of the Schools in the District of Columbia. The inspectors must have had at least five years' experience in the practice of medicine in the District of Columbia, and must undergo a competitive examination. They are to perform their duties under the direction of the Health Officer, according to rules formulated by him, and approved by the Board of Education and the Commissioners. Eight of the inspectors are white and four colored.

Tannoform in Intertrigo.—Dr. S. E. Ostrowsky has employed tannoform with excellent result in the intertrigo of small children. The drug was used either as a dusting-powder mixed with an equal part of starch, or as a 10-per-cent. ointment with vaselin. When the latter is employed, the inflamed area should be washed with a solution of boric acid before applying the salve. Forty infants were treated in this manner, and the most obstinate cases, which had resisted all other applications, yielded promptly to tannoform. The results are ascribed to its astringent and antiseptic properties. No irritation was observed even in the youngest infants.—*Arch. of Pediatrics*.

New Hospital for Consumptives.—Contracts for the erection of the new Toronto Free Hospital for Consumptives have been awarded to Mr. D. C. Walton, of Toronto Junction, and work will commence at once. Mr. F. H. Herbert is the architect. The site is on the line of the Weston trolley road, between Toronto Junction and Weston Village, and consists of 37 1-2 acres of beautifully wooded land on the banks of the Humber. A large stone building is on the property, which, when remodelled, will be used as an administration building. Additions will be made to the main building, and pavilions and roofed tents for patients will be built, making the accommodation at the outset for about fifty patients. It is hoped to receive patients by next month.

Unique Gift to Columbia from a Physician.—Dr. Saram R. Ellison, of 118 West One Hundred and Third Street, has arranged to bequeath his remarkable library of works on magic to the library of the Columbia University. The collection consists of some twelve hundred books relating to every phase of black and white magic, from the superstitious performances of necromancers of the middle ages to the latest scientific marvels of Maskelyne and Kellar. Several scrapbooks in the collection are made up of clippings from magazines revealing magical secrets that have not been published elsewhere. Dr. Ellison has received assurances from the college librarian that the collection will not be broken up, but will be placed on the shelves in its integrity.—*N. Y. Med. Jour.*

School of Journalism.—Dr. Nicholas Murray Butler, president of Columbia University, has announced that the trustees had received a gift of \$1,000,000 from Joseph Pulitzer, proprietor of the *New York World*, for the establishment and endowment of a school of journalism as one of the departments of the university. If, at the end of three years, the school of journalism is in successful operation, Mr. Pulitzer will give to Columbia an additional million dollars. It will be the province of the school of journalism to provide both theoretical and practical training for journalism as a profession. The school will take rank with the existing professional schools of law, medicine, engineering, architecture, and teaching. The estimated cost of the building, fully furnished and equipped, is about \$500,000.

The Teaching of Personal Hygiene.—The ordinary instruction in physical education, physiology, dietetics, and exercise is not sufficient, and it is often faulty. It is not desirable to produce athletes, physical culture fanatics, or practitioners of new-fangled and erratic "systems" and "pathies." What is needed is simple instruction by capable teachers in the proper care and use of the body, authoritatively based upon the best available modern anatomic, physiologic, and hygienic data. We should not have "every man his own physician," as seems often the object in lectures, periodicals, and books relating to health; rather give every man fundamental knowledge that will enable him to understand and, if necessary, formulate the requisite rules of health, and to distinguish scientific medicine from quackery. Stripped of its superfluous technicalities this knowledge may be imparted to any one of average intelligence and education.

A Professorship of the History of Medicine in the United States.—The medical world has during the past few years been waking up to the value of the study of the history of medicine. Much has been done informally in this country, as elsewhere, to

arouse an active interest among the profession in this subject, but up to the present there has not, we believe, even been a regular professorship of the history of medicine in any university of the United States, though a few chairs do exist in Europe. The University of Maryland has taken the lead in this matter by the creation of such a chair, the first incumbent of which is Dr. Eugene F. Cordell, of Baltimore. Dr. Cordell has published in the *Johns Hopkins Hospital Bulletin* an exceedingly interesting contribution on the "Doctors and Medicine of Horace," and recently, we understand, a similar essay with Juvenal as the special subject of research.—*New York and Philadelphia Medical Journal*.

Tuberculosis in Animals.—Dr. D. E. Salmon, chief of the Bureau of Animal Industry of the United States, and an expert bacteriologist, at the convention of the American Veterinary Association at Ottawa, in September, described a series of experiments which have resulted in upsetting the theory of the celebrated German, Dr. Koch, who discovered a lymph for the destruction of the tuberculosis germs. Dr. Koch held that tuberculosis in animals was not contagious to man. The experiments of Dr. Salmon, he claims, have proven that Dr. Koch was wrong, and that several cases of tuberculosis had been traced to the affected animals. Some discussion followed, in which it was asserted that Dr. Koch had stated that although his experiments were numerous, it was possible for them all to be wrong. The paper was the most important read for some time, and Dr. Salmon was congratulated by a very large majority of the scientific men present. Papers from Dr. C. H. Higgins on "Colics and Obstruction of the Smaller Intestine, and from Dr. A. S. Wheeler, Baltimore, on "Experiments with the Stomach Worm in Sheep," were submitted, as well as an address by Hon. Sydney Fisher on the importance of veterinary science to agriculture.

The Significance of a Sneeze.—The editor of the *National Druggist* says: "The fact is, that the majority of peoples, both ancient and modern, with the exceptions noted hereafter, seem to have regarded the act of sneezing as one usually fraught with evil. The custom still existing in many lands and among many peoples of uttering a salutation or a benediction on hearing one sneeze is a survival of a traditional fear of evil foreshadowed by the act. Some time ago a German contemporary, in answering a question regarding the origin of the almost universal Teutonic habit of saluting a sneeze with "Zum wohl," or "Gott segne dich," or "Gesundheit," stated that it originated during the prevalence of the great plague in the fourteenth century. One of the earliest symptoms of infection was a sneeze, single at first, but soon followed by a number of sternutations in quick suc-

cession. When a person sneezed, therefore, it was assumed that he was infected with the plague, and all who were near him commended him to the care of heaven, and lit out hot-foot to get away from him." This is the view generally held of the origin of the custom as it prevails throughout Europe to-day, but, that it will not bear investigation, is shown by the fact that among the wild tribes of Asia, Africa, Australia, etc., and among the ancient and modern Greeks and Romans, Egyptians, Jews and others there have, in times past, existed and now exist various and different superstitions regarding the significance of sneezing.—*American Medicine*.

A New Method in Medical Congresses, and one which seems certain to revolutionize the present plan, has been inaugurated by the International Congress of Ophthalmology. At present, as is well known, the programmes of large medical societies are overloaded, and the reading of the papers wastes the time of the members, because the articles soon appear in the journals, and can be read with more understanding than listened to. The most important criticism of the usual custom is that the time for discussion is lost in that used for the reading of papers. To avoid these errors the ophthalmologists have adopted the following plan: The papers must be forwarded to the committee sufficiently in advance to be grouped according to their contents, and immediately printed. They will form the first part of the printed report of the congress, and will be sent to each member, together with his admission ticket, at least two weeks before the time appointed for the opening of the congress. In this way each member will know the subjects to be considered, and will be able to prepare himself for serious discussion. The reading of the papers is thus dispensed with. The authors will be called upon by the president to make known in a few words the conclusions at which they have arrived, after which the discussion will at once begin. The opinions of men who have not the time to write and publish their experiences and opinions may thus be heard. The discussions will be printed, and will form the second part of the official report, which will be sent to each member after the close of the congress. The plan should receive the serious consideration of the officers and members of our national and State medical societies.—*American Medicine*, October 3rd.

Antidiphtheritic Serum Lozenges.—It is said that the diphtheria antitoxin discovered by Professor Roux, of the Pasteur Institute, is now being made up in the form of lozenges for use during convalescence.—*Philadelphia Med. Journal*.

The Physician's Library.

BOOK REVIEWS.

American Text-Book of Surgery. For Practitioners and Students. Edited by WILLIAM W. KEEN, M.D., LL.D., F.R.C.S. (Hon.), Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia; and J. WILLIAM WHITE, M.D., John Rhea Barton Professor of Surgery, University of Pennsylvania, Philadelphia. Fourth edition, thoroughly revised and greatly enlarged. Handsome octavo of 1363 pages, with 551 text-illustrations and 39 full-page plates, many in colors. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Cloth, \$7 net; sheep or half morocco, \$8 net. Canadian agents: J. A. Carveth & Co., Toronto.

The editors and publishers of "The American Text-Book of Surgery" have every reason to be more than proud of the success their volume has met with during the three editions through which it has run up till now. There are not many medical works that can boast of a sale of well on to 50,000 copies; but when one examines the character of the material presented in the twelve or thirteen hundred pages of which the book consists, and how one edition excels its predecessor, it is little surprise that the profession have shown, as they have done, their thorough appreciation of "The American Text-Book of Surgery."

The fourth edition has been thoroughly revised in almost every chapter, so that no one need fear that they will be duplicating volumes in purchasing again. The part devoted to spinal and local anesthesia is exceedingly interesting, as also the section on the more recent anesthetics. Six new chapters have been added, military surgery, naval surgery, tropical surgery, examination of the blood, immunity, and surgery of the pancreas. W. A. Y.

The Elements of Pathological Anatomy and Histology. By WALTER SYDNEY LAZARUS BARLOW, B.A., B.C., M.D., F.R.C.P. Philadelphia: P. Blakiston's Son & Co. Canadian agents: Chandler & Massey Limited, Toronto and Montreal.

A new text-book for students upon the subject of pathology is, perhaps, not the most necessary thing in the world. In no other department of medicine has the number of text-books been

so multiplied in the past few years, as in pathology, and one is apt to approach a new one with suspicion.

There are, however, in this text-book a number of points to be commended. First of all, one is struck by the freshness and originality of the illustration. Both those of gross specimens and the drawings of microscopic section are exceedingly well executed, and will be of the greatest assistance to the student.

Another point to be very much commended, is that this is a text-book of pathology, and not, as so many are nowadays, largely padded out with chapters upon bacteriology and bacteriological technique. The subject-matter is treated in an interesting fashion, and where possible the clinical bearing of facts is emphasized.

Here and there, one meets with statements with which one cannot agree, as for instance, on page 55, where the author refers the solution of tissues in pus formation to the action of proteolytic ferments secreted by the invading micro-organism. Again, in referring to deciduoma malignum, the description by the author is not clear, and there is an exceedingly confusing use of the term, "large decidual cells," which does not give one a very good idea of the pathological significance of the tumor. On the whole, however, the book may be recommended. J. J. MCK.

The American Illustrated Medical Dictionary. For Practitioners and Students. A complete dictionary of the terms used in medicine, surgery, dentistry, pharmacy, chemistry, and the kindred branches, including much collateral information of an encyclopedic character, together with new and elaborate tables, of arteries, muscles, nerves, veins, etc.; of bacilli, bacteria, micrococci, streptococci; eponymic tables of diseases, operations, signs and symptoms, stains, tests, methods of treatment, etc. By W. A. NEWMAN DORLAND, A.M., M.D., editor of the "American Pocket Medical Dictionary." Handsome large octavo, nearly 800 pages, bound in full, flexible leather. Price, \$4.50 net; with thumb index, \$5 net. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Toronto: J. A. Carveth & Co.

The rapid exhaustion of two large editions cannot but be a gratifying proof to the editor and publishers that this excellent work meets the varied needs of physicians and students better than any other dictionary on the market.

In this the third edition several hundreds of new terms that have been added to the vocabulary of medical sciences have been incorporated and clearly defined. The entire work, moreover, has evidently been subjected to a careful revision, and many of the

tables, notably those of acids, bacteria, stains, tests, methods of treatment, etc., have been amplified, and their practical value greatly increased. It is only by such constant and careful revision that a medical dictionary can hope to reflect the progress of medical science, and the usefulness of this work by this present revision has been very largely extended.

The plates are beautiful, especially those of the blood, bacteria, urinary tract, nerves, arteries, cells and bandages.

This book should be in the hands of every student of medicine, and will be found indispensable to the general practitioner.

W. J. W.

A Text-Book of Diseases of Women. By BARTON COOKE HIRST, M.D., Professor of Obstetrics in the University of Pennsylvania; Gynecologist to the Howard, the Orthopedic, and the Philadelphia Hospitals. Handsome octavo volume of 675 pages, sumptuously illustrated with some 650 mostly original illustrations, many in colors. Philadelphia, New York, London: W. B. Saunders & Co. 1903. Cloth \$5 net; sheep or half morocco, \$6 net. Canadian agents: J. A. Carveth & Co., Toronto.

Hirst's Text-Book of Obstetrics is now a fairly well-known work, and this his latest contribution to medical literature will form a companion book to it. We have perused with a great deal of satisfaction, as well as profit, the portions devoted to operations for the relief of various gynecologic anomalies of various kinds, and we don't hesitate to say that a more lucid section, or one "more full" of common sense, we have not read for a long time, and we commend it to practitioners. The photographs reproduced in half-tone are exceedingly good, and add to the value of every chapter. It is very readily seen that Dr. Hirst strongly believes that anyone intending to take up a special course of gynecology, and ultimately become a specialist in that branch, should first and foremost take special training in the treatment of all the complications and sequels of childbirth.

W. A. Y.

Lucotherapy, or the Therapeutic Action of Light. By CORYDON EUGENE ROGERS, M.D., Seattle, Wa., U.S.A., Gold Medallist University of New York, 1868; late Prosector of Anatomy, same; A. A. Surgeon, U.S.A., etc. A practical treatise upon the principal methods of employing light rays in the treatment of all germ diseases. Pp. 157. Illustrations, including portrait of author. The Metropolitan Press, Inc., Seattle, Wa.

The treatise is, properly speaking, a guide to the use of the Rogers Therapeutic Lamps in the treatment of tuberculosis, in-

cluding laryngeal forms, tubercular peritonitis, genital tuberculousis, and lupus, scrofuloderma, (consumption of the skin), Pott's disease, and other osteo-arthritic tubercular lesions, pneumonia, pleurisy, asthma, hay-fever, cancer, puerperal inflammations, non-infectious diseases of women, dysmenorrhea, acute and chronic articular rheumatism, rheumatism of the heart, traumatic arthritis, acute nephritis, diabetes mellitus, lumbago, neuroses, angina pectoris, mumps, gonorrhea, cystitis, orchitis, inflammation of the vulvo-vaginal glands, chorea, chancre, chancreoids, buboes, eczema, pityriasis maculata and circinata, erysipelas, gangrene, psoriasis, ferunculus, anthrax (carbuncle) and malignant pustule, galactophoritis, insomnia, gonorrheal salpingitis, uterine fibroids. The list is that given in the book. The author quotes very extensively from other writers—to show how very wrong everyone else is, including Finsen. The first diagram shows that the Rogers method employs all the actinic rays used by Finsen, and in addition the remainder of the visible spectrum, plus the heat rays, for he considers that: "The germ-destroying power of light is equal to the sum of the vibratory forces employed," and does not lie wholly in the actinic rays. As a contribution to the literature of light therapy, the book is certainly a curiosity.

C. R. D.

A Dictionary of Medical Science. Containing a full explanation of the various subjects and terms of anatomy, physiology, medical chemistry, pharmacy, pharmacology, therapeutics, medicine, hygiene, dietetics, pathology, bacteriology, surgery, ophthalmology, otology, laryngology, dermatology, gynecology, obstetrics, pediatrics, medical jurisprudence, dentistry, veterinary science, etc. By ROBERT DUNGLISON, M.D., LL.D., late Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia, etc. Twenty-third edition, thoroughly revised with the pronunciation, accentuation, and derivation of the terms, by Thos. L. Stedman, A.M., M.D., Fellow of the New York Academy of Medicine. Philadelphia and New York: Lea Bros. & Co. 1903.

There are but few of the active medical practitioners of to-day who have not always looked upon Dunglison's Medical Dictionary as one on which they have relied, ever since they first handled a medical work. Dunglison's dictionary has for many years been considered among the best of its kind, and justly so, as, in place of being but a lexicon of medical terms, it is more of a condensed medical encyclopedia, giving under each heading an epitome of its varied medical relations.

Dr. Stedman, in revising the work, has adhered, as much as

possible, to the author's style, only altering when actual necessity arose for doing so. During the past few years, even, the number of new medical terms has so increased that we find well on to 2,000 new definitions in the twenty-third edition of Dunglison, so that as a dictionary it can safely be considered a thoroughly complete and up-to-date volume, one that it will take a great deal of very hard work to surpass.

W. A. Y.

A Text-Book of Obstetrics. By J. CLARENCE WEBSTER, M.D. (Edin.), F.R.C.P.E., F.R.S.E., Professor of Obstetrics and Gynecology, Rush Medical College, in affiliation with the University of Chicago; Obstetrician and Gynecologist to the Presbyterian Hospital, Chicago; Obstetrician to the Chicago Lying-in Hospital and Dispensary, Chicago, etc., etc. Handsome octavo volume of 767 pages, with 383 illustrations, 23 in colors. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Cloth, \$5 net; sheep or half morocco, \$6 net. Canadian agents: J. A. Carveth & Co., Toronto.

A fault that we have more than once called attention to in our review columns in connection with works on obstetrics is that far too little attention is, as a rule, devoted to the description of the anatomical changes which invariably accompany pregnancy, labor, and the puerperal period. Dr. Webster, on the other hand, has erred the other way, if that could be possible, and has devoted a goodly portion of his capital text-book to those important changes. He has done so as the result of considerable study of frozen specimens, the best possible basis for use by the clinician. The author gives his readers the result also of his own experience, so that what he states, especially as to diagnosis and treatment, is thoroughly valuable material. The illustrations are very fine, most of them being original.

W. A. Y.

The American Pocket Medical Dictionary. Edited by W. A. NEWMAN DORLAND, M.D., Assistant Obstetrician to the Hospital of the University of Pennsylvania. Containing the pronunciation and definition of the principal words used in medicine and kindred sciences, with 566 pages and 64 extensive tables. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Flexible leather, with gold edges, \$1 net; with thumb index, \$1.25 net. Canadian agents: J. A. Carveth & Co., Toronto.

In this little work, now in its fourth edition, we have a pocket dictionary equalled by none on the market. It is a wonder to us how the editor has gotten so much information in such a small space. In this edition several thousand of the newest terms that

have appeared in recent medical literature have been added, and the entire work subjected to a careful revision. Since the work has come to us for review, we have had many occasions to refer to it for definitions of new words, and in no instance have we been disappointed. We believe that the work in its new form will meet more fully than ever a real demand on the part of physicians and students. It is unnecessary to add anything further, as we are satisfied that all who use this handy little volume will endorse the above statement.

E. H. A.

A Text-Book of Pathology. By ALFRED STENGEL, M.D., Professor of Clinical Medicine in the University of Pennsylvania. Octavo volume of 933 pages, with 394 text-illustrations, many in colors, and 7 full-page colored plates. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Cloth, \$5 net; sheep or half morocco, \$6 net. Canadian agents: J. A. Carveth & Co., Toronto.

Professor Stengel in this work has considered, more fully than is customary in works of pathology, the practical application of pathologic facts to clinical medicine. In the second part of the work, the pathology of individual organs and tissues is treated systematically, and under sub-headings that clearly indicate the subject-matter to be found on each page. The section on general pathology has naturally received the greatest care, and the most extensive revision. Owing to the advances in pathologic research, some of the chapters have been practically re-written. A useful appendix has been added, treating of pathologic technic methods. Many new illustrations, including ten excellent plates, have also been added. Undoubtedly one of the very best works on pathology in the English language.

A. J. H.

A Text-Book of the Practice of Medicine. By JAMES M. ANDERS, M.D., Ph.D., LL.D., Professor of the Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Sixth edition, thoroughly revised. Handsome octavo volume of 1300 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Cloth, \$5.50 net; sheep or half morocco, \$6.50 net. Canadian agents: J. A. Carveth & Co., Toronto.

Six separate and distinct editions in as many years is a record to be proud of. That is the measure of appreciation accorded to Dr. J. M. Anders' text-book of practice, and, judging from what we have so far had time to read of the sixth edition, the record of the past will be that of the future.

There is little or no change in the general plan of the book,

but it contains a great deal of new material, more especially chapters on amaurotic family idiocy, adiposis dolorosa, transcortical aphasia, the fourth disease, and albuminuria. All through the work, the author has given careful attention to the daily needs of practitioners and students.

- A *Text-Book of Clinical Anatomy*. For Students and Practitioners. By DANIEL N. EISENDRATH, A.B., M.D., Clinical Professor of Anatomy in the Medical Department of the University of Illinois (College of Physicians and Surgeons); Attending Surgeon to the Cook County Hospital, Chicago, etc. Handsome octavo of 515 pages, beautifully illustrated with 153 illustrations, a number in colors. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Cloth, \$5 net; sheep or half morocco, \$6 net. Canadian agents: J. A. Carveth & Co., Toronto.

Any book that will materially assist the medical student to apply the knowledge he gains during his career at college to his daily work in later years is simply invaluable. This, we take it, is what Professor Eisendrath intended in writing his text-book of clinical anatomy, and we can but say that he has succeeded in his object. He has bridged over the chasm between student and practitioner as far, at least, as descriptive anatomy and its application in the operating-room is concerned. The half-tone illustrations could not be improved upon, as also the typography.

- A *Text-Book upon the Pathogenic Bacteria*. For students of medicine and physicians. By JOSEPH MCFARLAND, M.D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia; Pathologist to the Philadelphia Hospital and to the Medico-Chirurgical Hospital, Philadelphia. Handsome octavo volume of 629 pages, fully illustrated, a number in colors. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Cloth, \$3.50 net. Canadian agents: J. A. Carveth & Co., Toronto.

It is only a short time since the third edition of Dr. McFarland's work was placed in the hands of the profession; but, so rapid have been the strides made in pathology, that he wisely decided to re-write his book, so that it will the better maintain its reputation as being invariably free of old matter, and full of what is only most recent and up-to-date. Dr. McFarland has added quite a quantity of new material, so that the volume is considerably larger than its predecessor. College students will act wisely in providing themselves with a copy, and will find that, in their laboratory work, it will prove of the greatest assistance to them.

The Principles and Practice of Hydrotherapy. A guide to the application of water in disease, for students and practitioners of medicine. By SIMON BARUCH, M.D., Professor of Hydrotherapeutics in the N.Y. Post-Graduate Medical School. Second edition, revised and enlarged. With numerous illustrations. New York: William Wood & Co. 1903. Canadian agents: Chandler & Massey Limited, Toronto and Montreal.

It is during but recent years that the profession have used, to any extent, water in the treatment of disease. Dr. Baruch has for a considerable length of time urged the more precise use of hydrotherapy in disease, just as much so as the regulation of diet, the use of rest and exercise, and the prescribing of medicinal agents. His volume in its present form is a creditable production, and, though there are many who may not agree with his ideas, especially in the views he expresses as to the adoption of hydrotherapy in asylums in the treatment of insanity, there are, on the other hand, many more who will be under a debt of gratitude to him for a volume which is the outcome of a great deal of patient, hard work.

W. A. Y.

The Papers of Pastor Felix. By ARTHUR JOHN LOCKHART. Toronto: William Briggs.

We are always pleased to meet the work of a Canadian author, and "The Papers of Pastor Felix" form no exception. The sketch of Phemie, the beautiful, bright-eyed child of rural Canada, with the pathetic picture of her aged grandfather constantly and vainly looking for her return, keeps one's attention with increasing interest, and pleasantly passes a tired hour.

We were also much pleased with the minister's Saturday evening, and the dialogue between himself and his two friends, the village doctor and the school master. The legend in verse, of the little lost child of the Indians in the mountain region of New Hampshire—The Waters of Carr—is especially fine.

The work contains a good deal of original poetry, mixed in with prose sketches and apt quotations from the best poets.

W. J. W.

The Principles of Obstetrics. A Practical Manual for the Student and General Practitioner. By STANLEY PERKINS WARREN, M.D., Obstetric Surgeon to the Maine General Hospital, etc. Profusely illustrated. New York: Wm. Wood & Company. 1903. Canadian agents: Chandler & Massey Limited, Toronto and Montreal.

This is a concise, practical text-book upon the principles of obstetrics for students and general practitioners. An effort has

been made to restrict the work to the smallest limits possible, without omitting essential facts. It is readable, reliable, well printed and beautifully illustrated, and is thoroughly adapted for the use of those who desire to obtain a practical working knowledge of the subject without taking time to go into discussion which are interesting mainly from a theoretical standpoint. A. E.

Physical Diagnosis of Diseases of the Chest. By RICHARD C. CABOT, M.D., Physician to Out-Patients, Massachusetts General Hospital; Assistant in Clinical Medicine, Harvard Medical School. Second edition. New York: William Wood & Co., Publishers. Canadian agents: Chandler & Masey Limited, Toronto and Montreal.

This is a work, concise, definite, and yet exhaustive, well arranged, with complete table of contents and excellent index.

Part I. treats of technique and general diagnosis, Part II. of diseases of the heart, and Part III. of diseases of the lungs and pleura. Many common errors are corrected, and valuable modern observations and methods noted. It is well illustrated, and altogether an excellent work. A. R. G.

Aids to Physiology. By PEYTON T. B. BEALE, F.R.C.S. (Eng.), Lecturer in Physiology and Histology, Women's Department, King's College, and Demonstrator of Histology, King's College, London. Bailliere, Tindall & Cox, 8 Henrietta St., London. 1903.

This is intended to be an aid to students in reviewing their work for class-room and other examinations, and to practitioners who wish to refresh their memory. It is well written, brief and full, and is well adapted for the purpose for which it was intended. A. E.

Earth's Enigmas. By CHARLES G. D. ROBERTS, author of "The Kindred of the Wild," "The Heart of the Ancient Wood," "Barbara Ladd," "Poems," etc. Illustrated by Charles Livingston Bull. Toronto: The Copp Clark Co., Limited. 1903.

"Earth's Enigmas" is a collection of short stories presenting one or another of the problems of life or nature to which, as it appears to many of us, there is no adequate solution. Others are the literal transcript of dreams, while others are taken from Canadian backwoods life. The stories are well told, and are exceedingly interesting. I must say I enjoyed them greatly.

A. J. H.

A Laboratory Guide in Urinalysis and Toxicology. By R. A. WITTHAUS, A.M., M.D., Professor of Chemistry, Physics and Toxicology in the Medical Department, Cornell University; Member of the American Chemical Society, and of the Chemical Societies of Paris and Berlin, etc. Fifth edition. New York: William Wood & Co., Publishers. Canadian agents: Chandler & Massey Limited, Toronto and Montreal.

This is a most complete and valuable guide for laboratory work, most conveniently arranged and bound and well illustrated.

A. R. G.

Golden Rules for Diseases of Infants and Children. By GEORGE CARPENTER, M.D., M.R.C.P., Assistant Physician at the North-Eastern Hospital for Children, etc. Second edition, enlarged. Bristol: John Wright & Co.

The "Golden Rules" consist of short statements regarding the nature, symptoms, and treatment of diseases of infants and children. It is a handy pocket edition for ready reference.

A. E.

CORRECTION.—In a review of "Polyphase Currents in Electrotherapy," in a previous number, the reviewer was made to say that "Guimbail, of Paris, has employed them (*i.e.*, polyphase currents) for over sixty years." The sentence should read "six years."

"THE DOCTOR'S RECREATION" SERIES.

THE following series of books, which must of necessity interest medical men, will be published this winter by the Saalfield Publishing Company. Judging from their titles, the publishers ought to have no difficulty in getting a large number of subscribers from the ranks of the profession. It comprises twelve octavo volumes:

Volume I. *The Doctor's Leisure Hour.* Facts and Fancies of Interest to the Doctor and his Patient. Arranged by Porter Davies, M.D.

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Volume XII. *The Doctor's Who's Who: A Biographical Dictionary of Living Practitioners in All Parts of the World*. Edited by Charles Wells Moulton.

Editorial Staff of "The Doctor's Recreation" Series.—Editor-in-Chief: Chas. Wells Moulton, Buffalo, N.Y. Associate Editors: Nicholas Senn, M.D., Ph.D., LL.D., C.M., Chicago, Ill.; Wm. Henry Drummond, M.D., LL.D., Montreal, Canada; John C. Hemmeter, M.D., Ph.D., Baltimore, Md.; Wm. Warren Potter, M.D., Buffalo, N.Y.; Titus Munson Coan, M.D., New York City; Emory Lauphear, M.D., St. Louis, Mo.; Albert Vander Veer, M.D., Ph.D., Albany, N.Y.; Winslow Anderson, M.D., San Francisco, Cal.; W. J. Bell, M.D., St. Joseph, Mo.; Henry W. Roby, M.D., Topeka, Kansas.

Physicians' Book-keeping.—It is a well-known fact that book-keeping to the average physician is his *bête noir* and that professional men would be far better off financially if they paid a little more attention to the business side of practice. Nowadays it costs a mere bagatelle to employ someone to keep the books written up and accounts rendered, as they should be, once a month, especially when results are looked at. A practical accountant, with the best of references and long experience, wishes to make arrangements with physicians to keep their books and render their accounts, in the evenings. His terms are very moderate and he solicits a personal interview. Those interested address, "Accountant," Box 71, CANADIAN JOURNAL OF MEDICINE AND SURGERY, TORONTO.

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NO. 6.

Original Contributions.

SPINAL INJURIES EXTERNAL TO THE SPINAL CORD.*

BY THOMAS H. MANLEY, M.D., PH.D., NEW YORK.

PROGRESSIVE study of trauma of the rachidian structures has, of late years, become a subject of more than passing interest to practitioners; because, since the enormous expansion of every description of railroad traffic in this country and the erection of buildings of great height, the number of serious spinal traumatism has greatly enlarged.

Structure and Function.—In order to intelligently acquaint ourselves with the character of the primary pathological conditions succeeding rachidian injuries, it is well that an outline of structure and function be briefly considered. At the outset let us note that the spinal architecture in man presents several special and unique characters; hence we must exercise a prudent reserve when we assume to apply the deductions derived from deliberately inflicted traumatism on the lower animal to grave spinal injuries in the human being.

In man the vertebral column occupies a vertical position resting on two supports. It is a flexible, tubular pyramid, its body being composed of a composite structure without any regularly constituted articulations. About two-thirds of the vertebral column is composed of osseous tissue, and one-third intervertebral substance. The osseous spines and arches posteriorly are jointed.

Although of great strength, the spine is in a large degree elastic and resilient. Within this osseo-cartilaginous cage securely guarded and deeply buried, is the medulla-spinalis, surrounded

* Read before Mississippi Valley Medical Association, at Kansas City Mo., October 12th, 19 2.

by a fluid continuous with the cerebral ventricles through the foramen of Magendie. A ponderous musculature supports and acts on the spinal column. The extrinsic structures have an abundant vascular supply from vessels within and external to the vertebral hollow.

Defences of the Spine.—Although the spine is composed of so many different structures, lying apparently so near the surface, no region of the human body can resist violence with so much impunity; the sudden sinking of the head on the shoulders so safeguards the cervical segment that a serious injury, except by indirect force, is seldom encountered. In the dorsal areas we note the frequent injuries of the shoulders, their appendages and the ribs; or even serious damage to the thoracic contents, but the rachidian structures have escaped.

Nearly every description of abdominal injury have I seen from violent blows and crushes, but never an associate injury of the dorsal or lumbar vertebrae, except in mortal cases. Nothing less than great and direct force can sunder the sacrum or its caudal appendage, the coccyx.

The Spinal Cord.—The vertebral hollow contains the greater part of an organ of the very first importance to life, which is not only a conductor of impulses, but also regulates all the processes of nutrition and governs all vital actions, as from ganglia directly connected with it springs nearly the entire nerve supply, general and special. Delicately organized as the cord is, it is endowed with a remarkable tolerance to injury; besides it undoubtedly possesses active regenerative properties. The spinal cord, in the vertebral canal and at the base of the skull, is vastly better protected from violence than the brain proper. The entire cord weighs a little more than two ounces, is pierced by a central canal and is suspended in the subarachnoid fluid, steadied and supported by its roots. Hall has pointed out that all the cranial nerves, except the optic, olfactory and patheticus, have their origin in the bulb; hence, should the brain be removed, even in a warm-blooded animal, life would yet remain, as respiration and the circulation would continue. The cord has a head, a body, limbs, and a tail; all but the first are in the vertebral canal.

Extrinsic Lesions of the Spine.—At first thought, it might seem impracticable or inexpedient from an anatomical or physiological standpoint to discuss separately the traumatism of the cord and those of the parts overlying it, the *extrinsic*; but as a matter of fact, while central lesions from traumatism, involving paralysis, are uncommon, those of the external structures are comparatively infrequent. My purpose on this occasion will be to touch very briefly on the extradural lesions, chiefly on those which do not manifest themselves by paralysis. These in their order of frequency are: First, contusions; second, sprain; third, hemorrhage;

fourth, fracture; fifth, diastasis, fracture-luxation; sixth, lesions complicating spinal injuries.

Contusions.—Contusions result from blows, falls or crushes. A violent blow over the upper cervical areas of the spine may result in serious consequences, for here are lodged the large cervical ganglia of the sympathetic; the roots of the phrenic nerves are in close proximity to the ganglia of the vagi. In a violent blow the hollow organs of the neck, the pharynx, esophagus, larynx and trachea usually escape damage.

The Effect of Shock and Contre-Coup Force on the Viscera of the Cavities of the Chest, Abdomen and Pelvis.—Disastrous consequences sometimes result from the *contre-coup* effects of a blow. Therefore, in the dorsal or lumbar and sacral regions the organs of the thorax, abdomen or pelvis may suffer varying degrees of disorganization, while the rachidian structures have escaped damage. By this quality of force applied over the thorax, the posterior mediastinal space may be opened, the pleura or lung lacerated, the kidney contused or displaced, the distended stomach ruptured; the pendulous organs, as the liver, the spleen, may also suffer from the effects of the disorganizing force.

Similar effects may occur when the force falls over the loin, or hypogastrium, notably, to the solar plexus, the pancreas or the great blood trunks. In the female, a violent blow over the sacrum may displace the ovary or the uterus, and in any stage of pregnancy induce premature delivery.

The most ordinary effect sustained after spinal contusion is subcutaneous, intermuscular, extra or intra-rachidian hemorrhage. Inflammatory reaction with spasmodic contraction and rigidity of the muscles speedily supervenes. Extrinsic rachidian contusions, while they sometimes cause severe suffering and impairment in function, may be generally regarded as belonging to the minor class of spinal traumatism, when there are no visceral complications.

Spinal-Sprain, Wrenches of the Back.—By sprain we usually understand an injury of a joint produced by a wrench or a twist; sometimes just short of a tangible fracture or luxation, though it may be more serious in its consequences than either. In the spine such an injury involves several joints. Sprains frequently involve a splitting or clipping of bone, an over-stretching or a rupture of muscle ligaments or tendons. They are often self-reduced luxations, the displaced bones having automatically sprung into place. So-called "sprains" are without doubt one of the most frequent determining factors in serious types of Pott's disease in early life; the finer, deeper structures having sustained damage, while no obvious evidence of it remains on the surface after injury is inflicted. A very severe spinal sprain in the adult may lead to deformity, to ankylosis, to myotrophic changes in the soft parts

and ultimate impediment in function. Moliere well says that "We may properly observe an attitude of reserve in the prognosis of *entorse*, torsion or violent flexion of the rachidian structures, especially in young subjects, as at a period more or less remote from injury, ankylosis, necrosis or suppuration with symptoms of Pott's disease may set in." He relates an instance which so well illustrates these sequelæ that it is here transcribed: "A young man aged 23 fell a distance of forty-five feet, striking on his shoulder. For months he felt no inconvenience, when finally, he noted trouble in urinating. Now, anesthesia in the limbs with some pains in the back set in. After a while the medullary symptoms passed off, the *loco-dolenti* leaving a well-marked projection of the apophyses of the fifth, sixth and seventh spinal vertebrae. He later completely recovered his former activity and vigor. Tuffier, Hallion and Gurlt have recorded several similar examples of this class. Chadevergue and Bonnet insist, after their experimental researches on the cadaver, that *arrachement*, straining or tearing of the ligaments, occurs more frequently than fracture, and that in the dorsal region, particularly, it may be often observed, while the interstitial discs and bodies escape damage.

Severe sprain of the cervical segment of the spine, without fracture, in adults is probably very rare. In the dorsal areas partial fracture, or a non-displaced one, of an arch, or spur, may be often mistaken for a "sprain"; in fact, they often go together. Minor degrees of sprains occur most commonly in the lumbar region, and here is where we sometimes witness an injury which, clinically, closely resembles the joint-sprain of a member.

Fortunately at this point the medulla has broken up into a leash of independent trunks—the *cauda-equina*. The canal widens and the rachidian column begins to broaden, as it reaches the sacrum. Here we note a larger degree of motion. The lateral costal supports being absent, a considerable degree of lateral and rotary movement is permitted. In fact, we may regard this bond as the *lumbar neck* of the spine, inasmuch as it unites the thorax with the pelvis, and, moreover, within certain limits, allows of all the movements of the cervical isthmus.

A serious sprain may result here, from a sudden and violent bending backward of the trunk on the hips, or from an acute lateral flexion. The simple, common sprain in the "small of the back," most frequently follows from attempting to support great weights on the upper dorsal parts; raising heavy loads in lifting, the performance of difficult aerobic or gymnastic feats. The patient is at once seized with an agonizing pain in the lumbar muscles; he is bent up and only moves with great pain. He quite invariably will say that he felt "something rupture," and, no doubt, there has been a giving way of some of the supporting structures,

with an extravasation of blood into the intermuscular spaces. In some cases the deep nerve roots have suffered from over-tension, and hence neuritis follows. Mothe and Siedellot regard this type of sprain as dependent on rupture of muscles, while Lieutaud and Ponteau believed it was caused by dislocated muscles or tendons. In 1873, Martin, of Lyons, wrote at length on spinal sprain, dealing fully with its etiology, diagnosis, pathology and therapy. He agreed with Ponteau in the luxation theory, alleging that this was invariably attended with widespread muscular spasm which produced marked flexure, or even lateral spinal curvature. Savery insisted that in various cases of severe spinal sprain, though the subject might be about soon at his usual occupation, insidious pathological changes may be in operation, which ultimately lead to possible serious central disease or great impairment to the action and strength of the back. This injury may be inflicted while the individual is in an emotional state, when he remains quite ignorant of the severity, till the following day or even much later.

This important feature of these cases was brought out in a case coming under my observation three years ago. The patient was a young man, 30 years old, when I saw him in consultation with Dr. James Moran, of this city. He was a hearty, vigorous person, a bricklayer by occupation, who was injured in a railroad accident a week previously.

History of the Case.—On Sunday evening, a week before, the patient was in a crowded, open trolley car on his way home from the seaside. He was standing with a firm hold on one of the uprights at the end of the seat. The car was moving on a down-grade, with great speed and about to enter a curve, when another car just ahead came in view. The motorman quickly set the brakes. A collision was inevitable. When the clash came, the man held to his post, but the motion swung him over to the seat ahead, and threw him on his shoulders, down by the roadside under another passenger. An ambulance was soon called, but, as he only felt a violent shaking up, he refused to be taken to the hospital and made his way home. Soon after he had free vomiting with great pain in his back just below the shoulder blades; but regarding his injury as only a simple sprain, domestic remedies were applied and he remained quiet. On the fourth day he called Dr. James Moran. Three days later I was called in. At this period both his general condition and the local state of the back, pointed unmistakably to severe spinal injury. At the lower dorsal region, the parts were tumefied and discolored, the muscles marked by severe spasm, and the body so bowed as to give him the most relief. There were no medullary symptoms. It struck me as an ideal instance of severe extrinsic injury, and so I declared it.

After six weeks' rest he so far recovered as to be able to walk about, but movements of the body, except in a bent position, were

painful. After six weeks he had quite recovered, except for a well marked limitation of movement and strength in the back. Now, a well marked kyphos had formed, the projection including the last dorsal, and the first and second lumbar vertebrae.

SECOND CASE.—*Fracture of Right Clavicle with Cervical Sprain.*—Patient 32 years old, driver of an ice-cart. Was injured on May 12th, 1902, by being thrown out, while intoxicated, striking on his right shoulder and side of the head. Sustained fracture of the right clavicle near the middle. The day after admission to the hospital, he complained of a sense of numbness in both hands with muscular weakness. On left side anesthesia extended up as far as insertion of the deltoid. Pain with rigidity of the muscles compelled him to keep the neck in a flexed position. After nine weeks the cervical segment had recovered from the painful rigidity and sensory paralysis had passed off in the right forearm, but some numbness remained in the left forearm, and the grip of the hand remained very feeble. Over the spines of the sixth and seventh cervical vertebrae there yet remains a well marked tumefaction exceedingly sensitive to pressure or manipulation.

In this latter instance, of clavicular fracture, with spinal sprain from a fall, it is evident that the fall on the shoulder spared the spinal cord from more serious damage. When fracture of the clavicle occurs through the outer third of the shaft we sometimes note varying degrees of impaired function in the arm, resulting from the brachial plexus being crushed or pressed upon by the fragments, but in this case palsy was most intensified on the left side which pointed to a central lesion, and not one of the brachial nerve-cords. I may add, that in this instance the patient suffered for three weeks most intense pain, from the fourth cervical down to the first dorsal vertebra, and there was marked rigidity with intumescence of the overlying parts.

Spinal Hemorrhage—Extra-Dural.—There is no variety of traumatic-hemorrhage about which more confused ideas prevail, than that which so often follows severe spinal injury. The usual conception of it is so vague that but few really appreciate what its full meaning implies. Nature abundantly provides for the "man who carries the load," for that column which supports every organ and structure of the body above the femoral crutches. The parenchyma of no organ of the body is more abundantly supplied by the vascular tide than are the rachidian structures. Arterial blood pours into the overlying structures of the cord from every direction, and the intrarachidian plexus of veins is very capacious. The cervical segment of the cord derives its arterial supply quite exclusively from the large descending divisions of the vertebral, the dorsal from the intercostal, which subdivides into three branches: (a) anterior, which ramifies over the vertebral bodies;

(b) a posterior, or retro-dural, which splits up over the walls of the spinal canal, anastomosing with arteries from above and below; (c) a middle or medullary, pierces the sheath of the dura mater, to enter the eineritious substance of the cord, anastomosing with the anterior spinal in front and the posterior behind. Branches of the lumbar arteries, eight in number, supply the vertebral bodies and ligaments only. Large branches from the internal iliae abundantly supply the sacrum, its nerve trunks and the coccyx. In no other region will we discover so free anastomosis between the large arterial and venous capillaries. So keenly alive are surgeons to this anatomical fact, that they are always

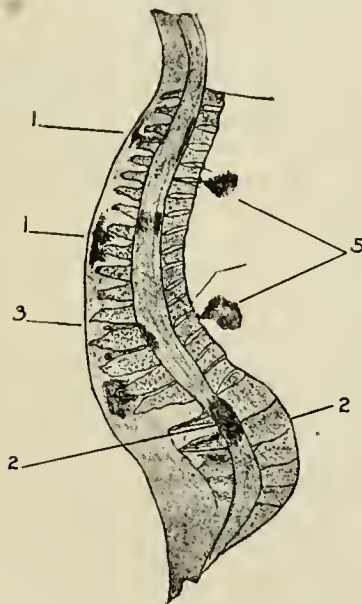


FIG. 1. Spinal Hemorrhage Types.

- | | |
|-------------------------------|---------------------------------|
| 1. Extrarachidian. | 4. Hematomyelia. |
| 2. Intrarachidian. | 5. Intrathoracic and abdominal. |
| 3. Intra and extra rachidian. | |

impressed by a salutary dread when they essay to expose the spinal cord, for no other organ in the body is more inaccessible to the scalpel in the event of an excessive vascular leakage. Sir Victor Horsley sets this down as one of the greatest dangers of laminectomy. A plexus of very large veins courses freely over and under the vertebral walls. Zappy said that intrarachidian veins when fully distended occupy quite one-third of the spinal canal.

On the Usual Situation of Spinal Hemorrhage.—Over the cervical areas the deeper tissues are a veritable sponge, much like the cavernous, for vascularity. In my own first case of laminectomy for fracture, before the shattered arches could be removed—

fifth and sixth—in spite of all possible haste and provisions to effect hemostasis, our patient was nearly mortally blanched; and yet, paradoxical as it may seem, in no other organ of importance do we discover so inadequate a vascular supply as in the *medulla-spinalis* itself. In this respect, as in so many others, does this structure differ from the brain, a continuation of which it practically is.

From the foregoing it is, therefore, manifest that in the infliction of great violence to the spinal pyramid, some type of hematorrhachis, rather than hematomyelia, must be, by all odds, the most frequent; or in other words, it is rather extrinsic than intrinsic bleeding. This holds good of the lower lumbar and sacral terminus, peculiarly where the cord has broken into large trunks, and hematorrhachis or hematomeningia only can occur. In this connection the high vascularity of the coccyx and Luschka's gland is noteworthy. Of hematorrhachis we have three types: First, into the intermuscular planes—extrarachidian; second, into the spinal canal—intrarachidian; third, intra and extrarachidian combined. The first is the most frequent and insignificant in its effect; the second, epidural, when sudden and of large volume, is always a much more serious event; the third is seldom witnessed, except in association with fracture, severe contusion or sprain.

The pathological effects of hemorrhage are, first, the drain on the circulation; second, by acting as a foreign body, inducing pressure, thereby inhibiting function, or by its presence provoking inflammatory or degenerative changes; the latter effects only are in operation after extrinsic, spinal traumatism. The composition and functions of the spinal hollow are not such as to favor large hemorrhage. This is a hermetically sealed passage, containing a fixed motionless organ. Hemorrhage into this tube is usually venous, and hence passive. There is no torrent. The blood coagulates slowly here, and often imperfectly, being of a tarry consistence, rather a firm clot. Bichat estimated the capacity of this canal, with the cord *in situ*, at a hundred and seventy cubic centimeters.

What part sanguineous pressure exercises here, *per se*, as a compression agent in impeding nerve conduction, is not definitely determined, because in many instances there have been other associate etiological factors in operation, of which the blood-leak is in a large measure but a consequence. There is but a very little analogy between this type of hemorrhage and intracranial, because of the wide contrast in the anatomical arrangement and structure of the vessels.

The most usual site of severe traumatic hemorrhage is extradural. In fractures of the spine and other forcibly induced injuries of the rachidian structures, on anesthetized animals—dogs

and cats---I saw no single instance of large intradural hemorrhage, on autopsy, except when fracture was present. In one case, it was at first supposed that there was no fracture, but on removing the vertebral column, one was discovered extending through the body of the seventh dorsal vertebra. In nineteen autopsies on those dying from spinal injury accompanied by extra-dural bleeding, a fracture co-existed in all cases. It is doubtful if the cord, or any section of it, can be strangled and its functions suppressed by an effusion of blood, external to the dural envelope. But after the membranes or medulla itself have suffered from violent tension, torsion or contusion, a large hemorrhage then greatly aggravates existing conditions, giving rise to grave complications, by the immediate suppression of function, or by exciting an ascending meningitis or myelitis.

From the comparatively frequent occurrence of cerebral hemorrhage in cranial traumatisms, we have been led, too often, to

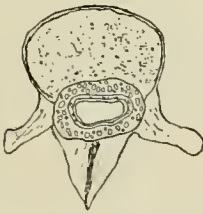


FIG. 2. Circulation in the rachidian canal.



FIG. 3. Comparative capacity of venous and arterial circulation.

assume the existence of "spinal apoplexy" after injury: and that the bleeding has been into the substance of the cord rather than external to it. This was what I looked for in my early hospital experience, in autopsies on those who had succumbed from violent injuries of the spine.

In 1893 I published notes of fifteen autopsies on this class, besides on fifty-five cases of spinal injury which recovered or remained paralyzed. My views on the subject then were as follows:

"I have never met with a single case, on autopsy, which gave conclusive demonstration of a free hemorrhage, which was exclusively limited to the spinal marrow, or subdural space, in which the leakage was of sufficient volume to seriously threaten the integrity of the cord by immediate pressure, or to excite consecutive inflammation. On the contrary, in all my cases of spinal hemorrhage, in which *post-mortem* examinations were permitted, the blood escape was external to the theca; extra-dural.

"We can seldom have extra-vertebral hemorrhagic pressure as an independent factor in spinal injuries. When such does exist, it is always in association with either fracture or dislocation.

"Hemorrhage into the spinal canal—extra-dural—as a source of meningeal inflammation, or medullary compression in traumas of every description, in point of frequency, vastly preponderates.

"The physical quality of this pressure is hydrostatic; anatomically consisting in most cases of arterial blood, in a fluid or coagulable state.

"The ultimate fate of one, the subject of traumatic spinal hemorrhage, will depend on various factors, the most important of which will have reference:

- "1. With respect to situation and extent.
- "2. The suddenness of its onset, or its insidious development.
- "3. The general condition and complications."

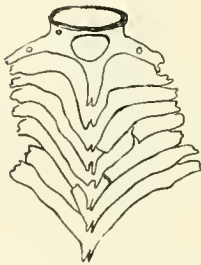


FIG. 4. Fracture of the arches—cervical region.

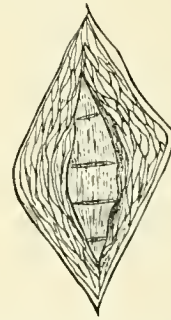


FIG. 5. Spinal arches removed and cord showing vertebral bodies.

My experience since that time has been along the same lines. It has been a source of much gratification to me to have learned that most surgeons and pathologists quite generally agree that *hemorrhachis* and not *hematomyelia* is the dominating vascular lesion here. Dr. Seymour Sharkey goes so far as to say that there is no case on record of death from a primary hemorrhage into the medulla-spinalis. Charcot expresses a doubt that such a condition ever existed, and believes that such hemorrhage only occurs after softening or consequent on myelitis. In those examples of large and sudden mixed bleeding into the spinal hollow, grave symptoms may quickly supervene.

In a case published by Mellor, after a fall from a cherry tree, a man was seen paralyzed. He had great pain in the neck on movement. On the seventh day a bed-sore appeared. In three months, complete recovery. Hoch gives an example of the less acute type. His patient fell about ten feet, striking on his back,

got up, no immediate trouble, but three weeks later was seized with severe pain between the shoulders, and contraction of the brachial muscles, and later had paraplegia. Recovery ensued with some paresis of the arms remaining over a long period. In another instance, a man fell from a train in motion, but apparently sustained nothing more than some slight bruises. On the night of the seventh day he awoke to find complete paralysis of the right side. Later, recovery was complete. Reynier and Lepine have published some remarkable examples of the acute and consecutive varieties. In May, 1900, a young man came under my care, who had of late fallen about fifteen feet, striking on his head and shoulders. In great shock, when he was brought to the hospital; quite complete motor paralysis, with loss of the patellar reflexes. Had to be catheterized. On the second day, temperature 104 F.; pulse, 110. Great pain between the shoulders, right arm drawn up over the chest, and rigid. After ten days, amelioration of all his symptoms set in, and on the thirty-second day, he left the hospital quite fully recovered. In some of these cases, it is highly probable that there is a small subdural hemorrhage, coincident with the external. Bastian supports the view that intradural hemorrhage is rare here; this, he thinks, is because of the consistence of the cord, as compared with the brain, and the richer supply of connective tissue around the blood-vessels. Gowers regarded severe hematomyelia as rarely primary and never traumatic. Erichsen divided spinal hemorrhage into three types: the first into the canal, the second into the theca-spinalis, and the third into the cord; the latter never, except after very grave traumatism, with fracture.

M. Lambert, of Lille, saw a man, who that day had sustained a violent spinal injury in the upper dorsal region, with paraplegia and complete loss of the reflexes following. It was intended to operate the next day to relieve what seemed to be osseous pressure of the cord, but he died the same night of bulbar paralysis. On autopsy, only a simple extra-dural effusion of blood was found, extending from the third to the fifth cervical vertebra. There was no visible alteration of the cord or bulb. From the autopsy findings in this case, this author is led to believe that acute hemorrhagic compression of the cord, is ample to produce paralysis or death, without any serious structural alterations in it.

In conclusion, we may summarize that extrinsic rachidian hemorrhages appear in the form of, first, intermuscular effusions of blood or hematoma, succeeding laceration of muscle, cleavage of bone or rupture of ligament; second, intra-rachidian hemorrhage from rupture of the larger intra-dural plexus of veins; third, a co-existing hemorrhage from the large connecting vessels lying between extra-vertebral and the rachidian plexus; fourth, non-complicated, intra-rachidian hemorrhage is seldom the cause

of grave central lesion; in the moderate type recovery is the rule. Meningeal or medullary hemorrhage, all authorities agree, can rarely occur as a primary lesion, after trauma, except in the event of fatal destruction of the medullary elements.

Extra-dural hemorrhage is seldom a cause of inhibiting function, except when sudden, primary and of large volume. In the lumbar or sacral segments, hemostatic pressure—hematorachidian—seldom operates alone, as an inhibitory influence on the nerve-cords, as in this situation the intervertebral apertures are so large as to permit of a free sanguineous escape into the loose connective tissues along the lateral and posterior walls of the vertebra; hence in this situation concentrated and prolonged compression is quite improbable. We are justified in regarding spinal hemorrhage as devoid of grave significance, with rare exceptions. It is, there-

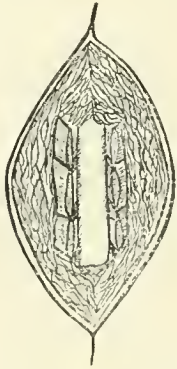


FIG. 6. Laminectomy, showing cord in position.



FIG. 7. Removal of posterior ligament.

fore, only when intra-rachidian hemorrhage exists as a complicating factor, that it may be a cause of serious apprehension.

Spinal Fracture—Apophyseal and "Broken-Back."—Spinal fracture presents so many unique and striking features that it should be always considered in a separate category. The subject becomes more simple and comprehensive if we would more critically examine into the anatomical architecture of the triple-curved, hollow, osseous tube. Its dominant characteristics are its strength and its pliancy. In virtue of the latter, its axis and angles may be altered; it may be bent within certain limits and be rotated without any marked diminution in the diameter of its canal.

Although the current works on anatomy describe the spine as made up of a chain of vertebrae, of separate independent links—something apparent enough in the skeleton—when we examine the body of the spine as a whole with the soft parts *in situ*, we will do well to note that the segments, the so-called bodies have

no joints, no synovial investment, no articular cartilage and no ligaments. Each segment is separated by an ill-defined structure, known and properly designated as "intervertebral substance." This occupies fully one-third of the entire length of the spine. It is neither bone nor cartilage, and yet histologically contains the elements of both. It resembles embryonic or immature osseous structure more than anything else.

Passing down anteriorly and laterally is a broad thick envelope of fibrous structure. It is defined as the "anterior ligament," but it serves other important purposes than a ligament. It passes down over the anterior and lateral aspects of the osseous blocks of bone: also invests the intravertebral substance, as a periosteal sheath. Laterally its fibres pass posteriorly to interlace and fuse with the "posterior ligament." Taken together, these two interwoven ligaments may be regarded as the *epirachidian sheath*, serving at once the double purpose of a periosteal in-

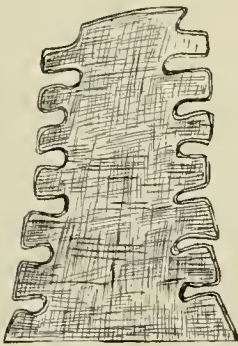


FIG. 8. Removal of anterior ligament.

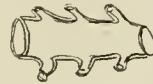


FIG. 9. Section of cord removed.

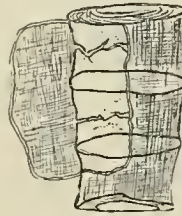


FIG. 10. Concealed fractures of bodies exposed by detaching sheath.

vestment and a lining for cavities. We may, then, without any violation of anatomical truth, regard the entire series of vertebral bodies, except possibly the atlas, as one continuous structure, "the back-bone." Attached or continuous with the osseous blocks posteriorly are the apophyses, the arches and spines, which enclose the cord and give attachment to muscles and ligaments. Here, and here only, do we find true ligaments. The osseous frame-work posteriorly, is essentially, but an *appendage* of the back-bone, to envelop the cord. The osseous structures of the spine are so deeply lodged, so limited in their range of movement, so firmly held by tendons and bound together by ligaments that when a fracture occurs there is seldom any palpable displacement, and hence it often defies detection. In the greater number of instances, there is an absence of crepitus, no immediate deformity after injury, nor is function of the cord in abeyance, except in very grave cases, where

the peripheral ganglia are involved, or the cord is crushed. The X-rays often fail to clarify matters. They cannot well be described as a primary aid. Of this means, Dunn well says: "It is not always possible or desirable to resort to the X-rays at once, but sooner or later great aid may be obtained from good skiagraphs in many cases. Nor will the rays prove infallible in diagnosis of these injuries. They are only a great aid in most cases, and it requires very expert work to make skiagraphs of the spinal column that are of much value. They are, perhaps, a greater service in certain gun-shot injuries where the ball has lodged in or about the vertebrae." Even the exploratory incision will fail to elucidate matters if the fracture is through a vertebral block. Nay, it may err when the more accessible pedicle or arch is shattered.

A case came under my care in March last—1902—illustrating the almost insurmountable difficulties in the diagnosis of spinal fracture. A young man aged 31 sustained a fall thirty-five feet from the elevated railroad, on the 12th of February, 1901. He was immediately brought to the hospital with paraplegia. Here it was supposed that a luxation existed, and several vain efforts at reduction were made. A week later he was entered at another hospital; there, a surgeon, who is among the pioneers of laminectomy, made an exploratory incision over the mid-dorsal region, assuming that there was a fracture at this site. Now, after more than a year, a well-marked kyphos has formed, consisting of the eleventh and twelfth dorsal and the first lumbar vertebrae, and at present the areas of palsy point to this as having been the primary seat of medullary lesion.

In fracture only involving the *extrinsic* parts, diagnosis is not infrequently quite impossible by any safe or justifiable procedures. In my experimental researches on spinal traumatism, it was repeatedly demonstrated that the arches might be cracked in two, or the bodies split in various directions, without a single central symptom supervening. Therefore, judging from analogy, one may often assume the probable presence of a fracture of the spine in man, after a violent injury, even though no positive evidence exists from the clinical aspects of the case; from all of which we may conclude that a "broken back" occurs more commonly than is generally assumed, and moreover, that it seldom menaces life, unless it seriously involves the cord; however, deformity and impediment in function may succeed.

At the International Medical Congress at Rome in 1894, the following was my summary on the topic of "Diagnosis in Spinal Fracture": "*First*, fracture of the spine has no well-defined symptom; *second*, in the majority of cases there is neither abnormal mobility, displacement or crepitus; *third*, experiment proves that the bodies or the apophyses may sustain multiple fracture without neural manifestations resulting; *fourth*, in those cases in-

volving the medullary structures, the extent of crushing is often great and permanent loss of function is liable to follow; *fifth*, the exploratory incision over the rachidian areas is fraught with danger and is never warranted here as an aid to diagnosis only."

Violent manipulation in reduction of the fragments is to be deprecated, as it is quite certain to aggravate pre-existing conditions. LeGros-Clark records an instance of a young man impaled on the pickets of a fence, the injury quite limited to the sacrum. The spine seemed nowhere else injured, but after death, a fracture of the second dorsal vertebra was discovered.

Jacobson saw a man in whom he diagnosed a fracture of the first and second lumbar vertebrae. There was loss of power in both extremities. Paralysis passed off, and in a few days the man returned to work. He was killed by an accident a week later. Now, on autopsy this surgeon discovered that only the first

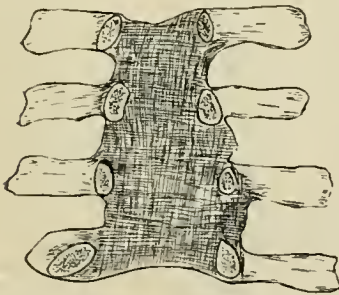


FIG. 11. The posterior common ligament after the removal of the arches and cord.



FIG. 12. Lumbar segment—cauda equina.

lumbar vertebra had been fractured, but this was shattered and somewhat displaced. Many of these fractures point to a surprising degree of tolerance of the cord. In Cloquet's celebrated case, though the atlas was resorbed and the odontoid process projected into the foramen-magnum, with pressure on the bulb, at no time in life was there any paralysis. Erichsen warns us not to forget that in a cervical region a fracture may be mistaken for a sprain, and that want of proper precaution may lead to a sudden displacement, with consecutive medullary pressure and death.

Gun-Shot and Punctured Fractures (compound fractures).—Gun-shot and punctured fractures in the spine belong to the open variety, and hence, from their nature, we will anticipate the dangerous complications of infection here. The propriety of including these with extrinsic lesions might be questioned, as the cord is often implicated, though not uncommonly there is no clinical evidence of it.

I have found, in the lower animals, that we may lacerate the cord with the needle point, or even make a small incision through

the long axis of it without any paralysis following. This is another evidence of the spinal marrow's tolerance of trauma, and from well authenticated cases published, we may believe that in man the same phenomenon obtains. Kirmisson removed with difficulty the broken blade of a pocket-knife, 6 cm. in length, which had been driven in between the seventh and eighth dorsal vertebrae. It was so fixed that a deep section had to be made before it could be dislodged. No unpleasant symptoms followed extraction. In another case, reported by Giss, a blade $7\frac{1}{2}$ cm. long was broken off after being fixed in the cervico-dorsal space. On the fourth day it was dislodged with difficulty. This was followed by the escape of cerebro-spinal fluid. There was no paralysis and the wound healed well. In Joubert's case the blade

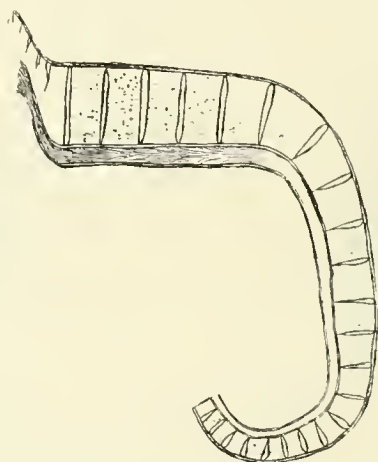


FIG. 13. Sharp cervico-dorsal and lumbo-dorsal, posterior flexure. The spinal canal preserving its uniform diameter.

entered between the sixth and seventh cervical vertebrae, engaging in the intervertebral disc. Some symptoms of meningeal inflammation followed, but there was no disorder of function.

Recent observations in connection with intrarachidian cocainization quite conclusively prove the comparative innocuousness of a single or repeated puncture of the meninges of medulla-spinalis. Just how the small modern missile, in recent warfare, affects these parts, we can only determine when the surgical histories of the wars in the Transvaal and Philippines are written.

Simultaneous Nerve Lesion; Mode of Repair and Ultimate after Effects in Spinal Fracture, not Inducing Paralysis.—*Apophyseal fracture*, the one most frequent, involves the arch or its constituent parts. It is quite generally induced by direct violence, by blows or falls.

Fracture of the vertebral bodies or diastasis of the intervertebral cartilage, the second variety, is confined to a sundering of the vertebral bodies, or a rupture through the intervertebral discs, a disorganization of the serpentine chain; in a word, it is a broken back. This is produced by a sharp bending of the rachidian coil, or a twisting movement—torsion. In this fracture, the thick investing sheath may or may not be lacerated, and the apophyseal ligaments are either overstretched or torn through. We will sometimes see instances of impacted vertebral fracture in the cervical region wherein we will discover the vertebrae telescoped into each other. This class is of a mixed character, the bodies and apophyses sustaining simultaneous shattering.

Nerve Complications.—It has been noted that the medullaspinalis presents marvellous resistance to trauma, to over-tension, bruising or pressure. On careful examination of the nerve roots, before and after they have passed through the vertebral foramen in

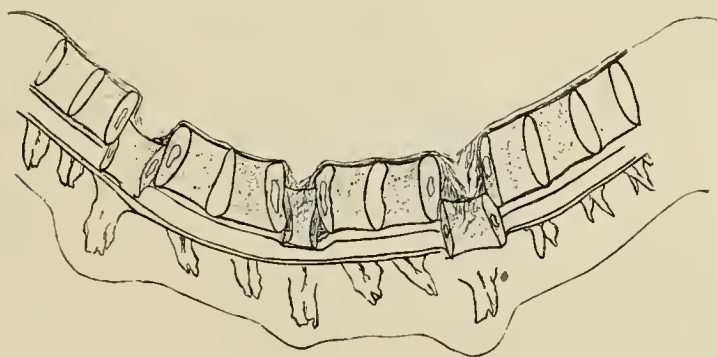


FIG. 14. Diastasis and displacement of the bodies.

apophyseal fracture, they will quite invariably exhibit evidence of laceration or contusion. Pain and atrophic changes are the dominating clinical symptoms of cord and nerve lesions in vertebral fracture, as in practically all severe traumatism here, which do not seriously involve the encircling tissue. The meninges at the site of injury take on inflammatory changes; there is congestion, with a plastic or serous effusion, which, however, fails to penetrate the pia mater or invade the cell elements of the cord. This is manifested by pain, hyperesthesia and myotrophic changes. The ganglionic nerve roots, the posterior, are by far more susceptible to the effects of trauma than the anterior roots, the motor. Hence, we will note so frequently after spinal injuries various phases of sensory disturbances, numbness of the parts supplied by certain nerve roots, or what is most frequent, heightened sensibility over the point of injury, always aggravated by motion and marked trophic changes in the areas enervated. The motor nerve

roots in many of these cases are quite unimpaired in function, until trophic changes are well advanced; in very aggravated instances the motor nerves of various parts will respond to electrical stimulation when sensation is quite totally abolished. We must, therefore, assume in a considerable number of cases of spinal fracture, that even though paralysis be absent, the cord and its roots have suffered damage with trophic effects on the muscles, and impairment of the general nutrition of the body. Ollier, in his great work on osseous regeneration, has pointed out that the repair or regeneration of bone is not governed by the same laws, at different epochs of life, or in various regions of the body. When we come to examine into the composite anatomical structures of the spinal frame-work, its histological elements and its functions, we can readily understand why we should anticipate here, in the process of restoration, peculiarly unique phenomena. Anatomically, we encounter nothing in the spine which corresponds with a bone shaft. The continuous periosteal investment of vertebral bodies and discs, like the osseous investment of the dura mater, possesses the property of aiding in osseous repair after fracture, but none of regeneration. Repair after apophyseal fracture—simple non-displaced and non-complicated—is rapid and practically perfect. But in fracture, through bodies or cleavage, through their discs of cartilage, alone or complicated, the quality of repair is not the same, in a considerable proportion of cases. Here, we find different influences in operation. The fractured spinal bodies, through rupture of their sheath and ligaments, are loosened, and the superincumbent weight from above tends to press them out of position; the steady strain from muscular traction on the apophyses posteriorly, tending always to so draw them backward that the resulting concavity is directed anteriorly. The intervertebral disc tends to partial or complete absorption, or osseous transformation and fusion with the bodies. In order to provide for the strain placed on the damaged column after fracture, nature supplies a massive, osseous exudate, which welds into one mass the whole disorganized areas. The strength of the pyramid it restores, but its mobility is lost and deformity of a permanent character frequently remains.

Spinal Dislocation by Diastasis, Luxation-Fracture.—A typical dislocation at any articulation implies that two opposing surfaces of bone have completely separated from each other. In the spinal column this can only occur in the apophyseal joints as the vertebral bodies are essentially but a constituent part of a structure devoid of a true articulation; hence a so-called dislocation cannot occur there, but instead a diastasis, a displacement or a fracture, the line of separation being through the intervertebral substance, its osseous attachment, or through the osseous body itself. In any event, or in whatever light we may regard this lesion, all must con-

cede that a total vertebral displacement is quite impossible without complete crushing of the cord.

Apophyseal luxation is very rare in severe spinal injuries, and is almost invariably complicated by fracture. I have never seen an instance of it, except in association with fracture, even in mortal injuries; and, in a series of experiments on anesthetized animals, I could only produce it in association with fracture, or in other words, could only effect a fracture-luxation simultaneously. We can only have a complete or incomplete luxation, without paralysis, in the apophyseal or costal articulations of the spine; a dislocation of the vertebral end of the ribs may occur, though I have never seen one recorded.

As the sum total of this phase of vertebral injuries, it becomes clear that in order to be comprehensive and logical, to accurately

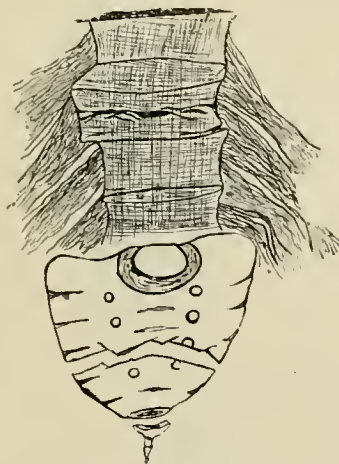


FIG. 15. (a) Lateral diastasis or lumbar subluxation. (b) Sacral fractures.

describe the true character of osseous disorganization of the rachidian pyramid, we should relegate to oblivion the ancient term, "dislocation of the spine," and substitute therefor the term, "diastasis or fracture-luxation." Spinal displacement or distortion, on the contrary, is common enough after various pathological conditions, as well as severe injuries. A recent able contribution by Drs. Painter and Osgood, of Boston, Mass., has been published, significant because the authors have broken new ground in nomenclature. They report: "Four cases of spinal displacement or kyphos, after injuries, without tuberculosis or other disease of the vertebrae, in which there were symptoms of pressure on the cord, which pressure symptoms were relieved and the patients entirely recovered, functionally, in the course of a few months, after treatment with plaster or leather jackets was commenced."

Fourteen other collected cases are included in this instructive report, all traumatic; the most striking feature in the essay is the authors' views of the etiology of deformity. It is no longer a deformity, consecutive to fracture or dislocation, but "rupture of the spinal ligaments." The kyphos in all these cases appeared at a distant period after injury, which is the rule after severe sprains, but in most of these cases of secondary hump, there is previously osseous injury or diastasis as well. Sir Astley Cooper saw a case of fracture in the fifth lumbar vertebra with the hump appearing several weeks later; there was no paralysis. A large number of such cases are on record. The pathology of deformity, as viewed by the Boston surgeons, no doubt rests on a sound basis, as damage to the ligament is one of the cardinal etiological factors, and "displacement" is a much more accurate designation than "spinal luxation."

Bennett cites an instance, setting forth the possibility of error in the diagnosis of vertebral injury. His patient sustained a fall,

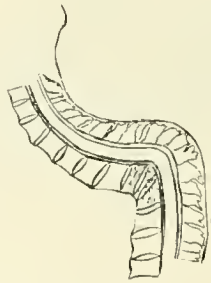


FIG. 16. Traumatic cyphos uniform diameter of vert. canal.

resulting in "apparent luxation of the sixth cervical vertebra." This was accompanied by the unconscious state. Patient soon sank. On autopsy, a fracture through the vault of the skull was found, with rupture of the middle meningeal artery. There was no luxation nor any injury of the cord.

Some of the Complications and Sequelae of the Spinal Injuries not Primarily Involving the Cord.—The cervical segment of the spinal column lies posterior to hollow passages. In severe injuries here, while life may be immediately jeopardized through the concussive impulse, communicated to the cardiac or respiratory centres, yet, except from the effects on the rachidian centres themselves, no consecutive, troublesome visceral complications are liable to follow. As we descend into the thorax, we at once appreciate the important relations subsisting between its contents and its posterior vertebral wall. We will note that the organs and structures of this cavity are in very close relation with it on either side. In the abdominal cavity, behind or below the mid-

ribs, resting more or less in immediate contact with the body of the spine, are the kidneys, the great blood trunks, the thoracic duct, pylorus, the duodenum and the distended stomach. The liver, pancreas and spleen have other interposing structures between them and the spine. It is well to remember that the upper pole of the kidney and the upper surfaces of the liver or distended stomach may extend to a level of the eighth or ninth dorsal vertebra under the diaphragm, and hence, although these are abdominal organs, they may suffer in cases of violent concussion of the lower thoracic vertebræ. The thorax is so constituted as to resist concussive force with remarkable impunity; its pneumatic sacs re-

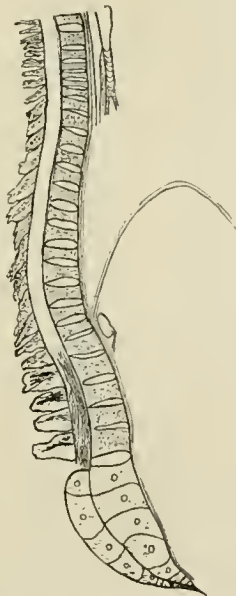


FIG. 17. Position of the cord. Relation of the cavities.

ceive and distribute violent blows; besides we will note posteriorly that the tips of the spinous processes are imbricated, look downward, and are usually below the convexity of the ribs, which are so often the seat of fracture after a fall on the side or back. This arrangement provides a powerful defence of the spine. In injuries produced by great backward flexion or torsion, involving disorganization, rupture of the ligaments or spinal diastasis, the contents of the thorax may become involved. I discovered in several instances on autopsy, after induced violence on the thoracic vertebræ of animals, that the posterior mediastinum and pleuræ were often opened with free hemorrhage into the parenchyma of the lung, the laceration in some cases extending into the pleuræ, with marked hemothorax following. In some instances pleurisy had

developed, and adhesions had followed. These complications occurred in cases, wherein the functions of the cord were undisturbed.

The lumbar segment contains only large nerve trunks, and hence, after great violence is sustained by the rachidian structures, the effects of complications may be more serious than those to the spinal structures. The spine may be "jack-knifed" in this situation; the fixed organs are caught under the midriff and crushed against the spine, the kidneys suffering most frequently. After violent concussive force sustained over the lumbar region, the solid or hollow organs of the abdomen, a pregnant uterus, a distended stomach, or bladder, or other viscus may suffer from *contre-coup* force—from transmitted shock.

I have seen a case of nearly fatal hemorrhage from the left kidney, following a blow over the upper lumbar segment. The

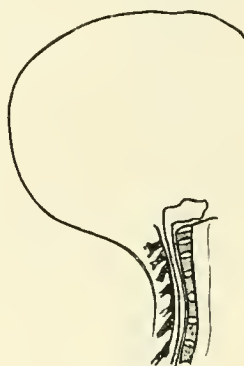


FIG. 18. Position of the bulb.

patient was a laborer, struck in the back by a large fragment of rock in a blast. Great pain in the back followed, with alarming hematuria. Blood flowed in a steady stream from the bladder, so copiously that the house-surgeon sought to subdue it by tying a string around the penis, which only led to great vesical distension. After a time, by the use of a refrigerant and astringent the bleeding ceased. It may be noted here that in this case there was no paralysis. It was more than a month before the man could leave the bed, and so much soreness and stiffness in the back remained that it was nearly a year before he could resume work as a laborer.

The late Dr. B. A. Watson discovered on the bodies of dogs, subjected to induced spinal injuries, the following most frequent complications: First, hemorrhage and infarcts into the lungs; second, laceration of the kidneys, liver and spleen; third, rupture of the great blood vessels, intestine and bladder.

Lyons, of London, records a case of a man crushed under a

wheel. No marked paralysis, had puffiness over the ninth and tenth dorsal vertebrae. This was followed by pneumothorax and expectoration of blood. Erichsen has published seven instances of severe thoracic lesions, following rachidian injuries, wherein no evidence of medullary lesion existed. These cases, he found, generally recovered. Butler saw a severe case of spinal injury after a fall. Patient suffered great pain in the back, but no palsy. Whole left chest barrel-shaped and hyperresonant; succussion elicited a splashing sound. Hollkopf believes that injury to the nerve structures may be a remote cause of tabes and says: "E. Schnlze was the first to speak of tabes with traumatism as an etiological factor. Later on, Petit, Ferry and Strauss collected quite a number of partly new, partly previously published cases, in which traumatism preceded the development of tabes. I myself was years ago called to a woman whose right leg was amputated after a severe trauma with considerable tissue destruction. The patient sent for me on account of severe lancinating pains in the left leg and in the stump, which set in several months after the amputation. At first sight of the patient I was at once struck by the pin-head pupils, as they are usually observed only in tabetics. Upon further examination it was found that she also suffered from diplopia, dysuria, girdle sensation, analgesia and anesthesia; in short, I was able to observe the entire pathological picture of tabes." A young man came under my care five years ago for the treatment of an injury in his mid-dorsal region, resulting from being struck by a baseball. The blow knocked him down. Severe pain over the site of injury succeeded, and two weeks later he began to cough up blood. Between the scapulae there remained a widespread intumescence, exquisitely sensitive. After a month's rest he quite recovered, and returned to his place as a clerk, complaining only of shortness of breath on active exercise.

Finally, when we recall the intimate relations existing between the ganglionic structures of the brain and the spinal medulla both direct, through the reflexes and the sympathetic system of nerves, it is obvious enough, when, in many varieties of serious traumatism, which either directly or indirectly involve the rachidian mechanism, the intracranial contents manifest signs of disordered function. Let us designate the condition neurasthenic, hysterical, psychical or what we may, but whether the predisposition to cerebral disturbance existed before the traumatism or resulted from it remains yet undecided. Sometimes the sundering of a bone may constitute the least serious pathological state following a fractured limb; the damage to the over-lying soft parts, the nerves or blood-vessels may be a much more serious matter than the osseous injury. And so in severe rachidian traumatism let us not concentrate all our attention on the cord to the exclusion of important circumjacent structures and organs.

**ADDRESS GIVEN TO THE GRADUATING CLASS (1903) OF
THE TORONTO GENERAL HOSPITAL TRAINING
SCHOOL FOR NURSES.**

BY ALLEN BAINES, M.D., C.M., L.R.C.P. (LOND.).

Physician to Toronto General Hospital.

MANY addresses have been given here to the graduating classes of past years, all of which have contained heartfelt words of sound and kindly advice. I think that I cannot do better than follow in the footsteps of my predecessors, and feel that, by so doing, I shall reap the gratitude of all the nurses who for the past three years have listened during the winter session to my discourses upon diphtheria and scarlet fever, and who will find relief in the change of the subject to that of the ethics of nursing.

First, let me give an introductory word with regard to our school. We have been taught that comparisons are always odious, yet I may perhaps be allowed to proclaim my belief that the graduates of the Toronto General Hospital Training School have always proved themselves to be as sound and as thorough in their knowledge and work as any of their sisters in the profession, and I feel that I have a right to proclaim my judgment, after an experience of many years in St. Thomas' Hospital, the head and centre of that grand order of skilled and trained nurses whose founder, Florence Nightingale, still lives in the home for graduates that is called by her name.

I have seen nursing in all its phases in many hospitals, and, in private practice, have had to do with many nurses from many schools, yet looking back upon my experience, I can assure you that a graduate of the Toronto General Hospital inspires me with a confidence and feeling of relief that can only be won after trial, by any other nurse.

Furthermore, I can assure you that I do not stand alone in this opinion, but that I have therein the concurrence of most physicians and surgeons in Canada, nay, on the whole continent, and I am sure this is also the feeling of our nurses, having been given a striking exemplification of this fact the other day. I received a card from one of our nurses' homes headed with the words, "All graduates of the Toronto General Hospital." This simple statement, given with the assurance of its value, conveyed to my mind the fact that our nurses were proud of, and appreciated their diploma, their training, and their lady superintendent and assistants.

I may say, furthermore, that I have found the nurses, both in

and out of the hospital, faithful, hard-working and deserving of every consideration. Such a condition of affairs cannot have been attained and maintained without great work and a competent supervisor, and this I claim we have in Miss Sniveley, than whom it would be difficult to find a superior.

What are the attributes that must be looked for in a good nurse? Many. The power of observation is one of the greatest; without it, we may have a faithful, kindly, sympathetic automaton.

Take a history paper: a glance at the remark column will a tale unfold of clear, clever, brainy observation, or of a mediocre nothingness. The nurse who is unable to read the significance of expression, attitude, voice, in fact one who has not all her senses keenly on the alert, and who cannot place everything clearly and concisely on paper for the physician to see on his return visit will never make a good nurse. Is this faculty to be found at the outset of a nurse's career? To a certain extent, yes, a gift; but that it can be cultivated there is no doubt, and without training this power cannot be of any value.

We shall find this art of observation much more necessary in medical than in surgical cases, but above all it will be found most necessary in infants and young children unable to tell you of their various sensations and pains; therefore, let me impress upon you the necessity of cultivating this art of observation: let not the slightest sign or symptom escape detection, and make a clerical or mental note of such change so as to have it embodied in your report, verbal or written.

Loyalty to the physician is another great attribute. Without that watchword constantly before you, you are useless, nay, harmful. Once let a physician doubt your loyalty, the co-operation ceases, and the copartnership in the case must come to an end. A look, a shrug of the shoulders, an indiscreet word, may produce a feeling of wavering confidence in the mind of an acutely watching mother, wife, or sister. This naturally leads to doubt and further to distrust, which usually ends in the discharge of the attending physician, and the calling in of another. The physician may not, just at the moment, grasp how such a train of events came about, but, believe me, it is only a matter of time before such conduct, acting as a boomerang, will reflect with swift justice on the injudicious nurse.

Loyalty is a beautiful word, descriptive of a grand and noble quality. Should you unfortunately be placed in a position where you believe the physician to be not doing his duty, neglecting his patient, or incapable, I beg you be loyal still; be so, by leaving the case, rather than, by word or deed, shaking the confidence of the patient or his friends.

Be loyal also to yourselves. It is absolutely necessary for your personal welfare to lay down hard and fast rules for your own well-being, therefore a few hints may here be not out of place. Whilst you must perforce put up with the best accommodation the house you are working in may supply, you will look well to the following points:—

Foods.—Should the meals be irregular and of a quality not suitable, ask leave to cook for yourselves, and save simple, well-cooked meals at regular hours.

Sleep.—The public is just being educated to the fact that nurses are only women, not beings made of wire and india rubber, capable of sitting up all day and all night, and therefore is becoming more thoughtful of their comfort. Should you find yourself being overworked, speak to the attending physician, and he will, without fail, make arrangements to secure your proper rest.

Exercise.—It is most essential that at least one hour a day should be spent out of doors, for fresh air and exercise are as necessary as food. Find out the hour that will be most suitable and never neglect your out-door exercise.

Lastly, Holidays.—It is a poor comfort to find, at the end of a year, that you are so many dollars ahead, when this amount has been gained at the expense of your health. I beg you to take at least one month's absolute rest and enjoyment in the country or at the seaside. It will pay a bountiful dividend in renewed health and vigor.

May I give a hint as to one way in which you may, with advantage, dispose of some of the spare-time, not only of your vacation, but also of the many hours of waiting for a case. I refer to the cultivation of the fine art of reading aloud, an accomplishment which you will find desirable, if not absolutely necessary in the routine of your work. Some will be inclined to smile at insistence upon so easy a matter. Such it seems at first sight, and, unfortunately, many resting upon the first sight think that anyone who can decipher print, and can take a breath at a full stop, can read aloud. It is not so. I repeat that the intelligent communication of written matter to other ears is a fine art, and that good readers are few and far between. To prove it, ask any of your acquaintances to read aloud, and note the misery that nine out of ten will cause you. The variety of their rendering will be great. Some will wind off sentences with a machine-like utterance, as from a reel; others rush into the fray without taking breath, and pause for lack of it in the wrong place. Some will go through it without communicating any of the life or color of the story to you, while others accentuate in the wrong places. We will not pursue this subject any further as this is not a lecture on elocution, but rather will dwell upon the reason of calling

your attention to it. Remember that, in nearly every case, only one-third of your time will be taken up in active nursing. The illness may be short and sharp, but there will be long days of convalescence, when your chief effort will be the beguiling of the weary hours of the sufferer. It is then that your ability to read aloud, pleasantly and intelligently, will be invaluable. The charm and the soothing power of books is unspeakable. Make friends with them in your spare time, for your own relaxation, and then you will be able to introduce the best of them to your patients. Nothing is so necessary to the healing of the body as the distraction of the mind by change of scene and surroundings, and this through books you will be able to give them as by magic. With you they will wander through foreign lands; with you they will enter into the intrigues, the trials, and joys of lives far other than their own; with you they will be led to ponder over the great questions of the day. Thus, by reading, you can help them to throw off the shadow of self, which is the worst enemy of convalescence, and will lead them by the hand from the debatable land of "better" to the high plateau of "well."

As I have said, I am no master of elocution, but from my own experience I may perhaps be allowed to throw out a few hints upon reading. Let your voice be well modulated, clear and low, and your breath taken without effort, and with due respect to the value of punctuation. Throw yourself as much as may be into the mind of the author, and let your emphasis be his. Wrap yourself in the story, and, losing yourself in it, be for the time (to use a paradox) an actress without action, so that you can make the sick-room a stage, and all the characters of the book players thereon. A nurse, capable of reading in such a manner, would be not only an aid to the patient and the physician, but would be making herself cultured and educated in matters outside her profession, impossible to attain in any other way.

A word or two now upon sympathy. The calling of a nurse is essentially womanly. It appeals to and demands all those gentle qualities that twine around the very name of the sex. Poet and artist have formed and have left us their pictures in color and word of ideal womanhood, and all of us who have natures capable of ideals at all, possess our mental picture of woman at her best. Such pictures will not be the same in detail of light and shade, yet the general outline will differ but little. Therein are found expressed tender sympathy, ready tact born of desire to shield from mental and bodily hurt, a politeness that was not learnt in schools, but rather is the outcome of a kindly nature, something, too, of a firmness that is not virile, but truly womanly, and withal the expression of a patient power of unselfish endurance learnt from the great Divine Example.

As we grasp this inward picture there seems to surround it the sweet fragrance born of fastidious cleanliness and daintiness, and we think that we hear that low, soft voice that is "a most excellent thing in woman." Look well at this picture, impress it on your minds, and know assuredly that as it shows forth the nature and manner of the ideal woman, so truly does it portray the nature and manner of the ideal nurse. Therefore, mould your lives into its likeness, resting in the certainty that it was moulded upon that Highest Likeness, of whose divine perfection the most beautiful character of man or woman can be but a faint and imperfect image. Shall we look now at the picture a little more closely, studying under the mental microscope each feature that stands before us?

Tender sympathy. What a great and wonderful and comforting word is this! How truly does one touch of it "make the whole world kin." How blessed a bond between soul and soul of man, how sweet a consoling power, how great an invigorator is this same sympathy. Three great questions present themselves about it: How shall we define it? How can we obtain it? How shall the nurse in her calling exercise it?

It is the power of one soul to interpret the foreign language of another. It is the reaching out of a living, loving human hand to the hand that gropes for help in the darkness of mental and physical suffering.

How is it obtained? This is a difficult question. All have not alike the power of showing sympathy. To those with whom its expression is difficult I would say, cultivate it by daily losing yourself in your case, not as a case, but as your fellow-being, and thus gradually growing to feel with the suffering to which you minister. As nurses you have the greatest opportunity of showing this gift. You who graduated to-night have been called out to a wonderful work. You will take your place at the bedside of sufferers, and will stand as it were in a circle of pain, and the effect of your skill will be doubled by your power of sympathy. Understand me, I do not mean by this, the poor imitation of it, another name for weakness, which would gratify the desire of the patient at the risk of his well-being. This would be to break your self-registered vow of obedience and loyalty to the physician in charge; but I do mean, manifestation of kindly fellow-feeling even whilst hard and painful things are being firmly done. I do mean the gentle look and whispered word, and cheering smile that will tell the sufferers that your heart is with them and that you are not a hard machine, but a sweet, tender and skilful woman.

In the family circle you will be wanted. Each member will turn to you in distress and anxiety, and for them also your sym-

pathy must glow and burn. Cultivate it, increase it, make it a part of your duty, for in it you have a marvellous God-given opportunity to strengthen the hope of the weary heart, to speed convalescence, and to fortify the frightened, shrinking souls of those whom no earthly skill can hold back from the solitary way of the Valley of the Shadow.

Now, we have to deal with a gift as important as sympathy, and in close alliance with it. I refer to the wonderful, priceless gift of tact—tact that lies as an instinct in the nature of many, and can be acquired to a great extent by all who will. The knowledge of when to speak, and when to refrain from speaking; the negative power that will control temper and tongue, and will bid the lips keep silence under provocation, when speech would be injurious and ill-judged. The power that will even control the expression of the face in moments when an unguarded look of surprise or dismay might be read by the patient and cause serious harm; and then the positive power that will prompt the word, and the act that shall fit the occasion, the word spoken in due season which the wise king tells us is “like apples of gold in pictures of silver.”

Valuable in every calling and in every relation of life is this excellent gift of tact—so valuable, so necessary in all our dealings, works and companionships, that without it a noble nature may be marred, or a grand life-work rendered ineffectual. Valuable indeed to all—to you in your profession of such intense worth that no halting word of mine can sufficiently impress its vast importance upon you.

No position in life is so delicate as that of a nurse. The guardian of the patient's welfare, the supporter of the physician's reputation, the oft-times close confidante of the family, how can you move without the guidance of ever-ready, ever-watchful tact, that shall keep confidences without exchanging them, be inaggressively loyal to the physician, and unswervingly faithful to the care and charge of the patient.

You will perhaps go away with the thought that I have tonight placed before you an unattainable and impossible ideal of your womanhood and your calling, yet I think you will know and feel the truth, sung by the poet in “Excelsior.” That, and that alone, must be the life motto of all. Nothing short of the highest must satisfy the gaze of the soul and the mind: with this before our eyes, though falling infinitely below that ideal, we may rise to “heights undreamed.”

This being assuredly true, I would like to say a few words about two more qualities which will be necessary to you in every case that you attend: patience and forbearance. There is no human character that is not beautified and endeared to others, and

rendered doubly influential by the exercise of these two virtues. I would have you remember that neither your calling nor ours leads us in soft places, or beckons us to lie on beds of roses. For you and for us, the thorn of aggravation will constantly arise and prick. Aggravation in many forms—the irritability and unreason of minds enfeebled by sickness, inconsideration and interference of the patient's friends. Such things as these will and must sting us, yet we can show no signs of temper. To do so would be foolish, oft-times dangerous, for the atmosphere of the sick-room must be one of calm and peace, and it is the duty of the nurse and physician to preserve it.

Arm yourselves, therefore, with the coat of mail called patience; clothe yourselves in the garment of charity that "suffers long," guard your lips and hide your face 'neath the visor of forbearance, and the day will be won for you, and, may be, for your case.

We have had occasion many times to refer to your position as a member, for the time, of a family whose ways are utterly unknown to you. Bear in mind that you have a duty in the house, not only to the sick, but to the well. Remember always the burden of anxiety carried by the latter. Show yourselves ready by act and tone to put your shoulder to this load of theirs, and you will, by ministering to their happiness, win your way into their hearts, and will often go forth from their home no longer a stranger, but a close and valued friend.

Let us think for a moment in passing about that word "tone" which I used just now. Perhaps nothing is so powerful to soothe or irritate as the tone of the human voice. Let it be "soft and low," for that is, I repeat, an excellent thing in woman. Soft and low, yet clear. Not an indistinct mumble, and not a whisper, for this last is pernicious, and entirely to be avoided in a sick-room. Equally impossible is the loud harsh note which jars even upon healthy nerves, and how much more upon those quickened by disease to a sensitiveness that is agony. Cultivate then the soft voice, tender and rich; so gentle that, falling upon ears made acute by suffering, it shall be as the gentle murmur of cooling waters, or the chime of bells in a distant valley, yet so clear that it shall be heard breathing words of hope in that sad hour when the human senses are veiled beneath the sombre wings of the angel who stands to bear the soul on its flight to the "Land of the Leal."

Fastidious neatness and cleanliness must, of course, be yours—in person, in your surroundings, and in your work. The presence of a nurse should be as the fragrance of a violet, and all things about and around her should partake of that fragrance. Fragrant, but never perfumed; that is an article of toilet that

must never be used whilst in attendance upon a case. Many healthful people are nauseated thereby, and therefore it is doubly to be avoided in the presence of the sick.

With this word I close and not inaptly. Guard, I pray you, and ponder over this picture of your calling. Attain by degrees, and through strength outside your own, to this ideal, and there shall surround you through life and beyond it, the fragrance of well-spent days, and of a life lived for the healing of your fellows.

DEFORMITIES AND DISABILITIES RESULTING FROM INJURIES OR DISEASES OF THE EPIPHYSES.

BY B. E. MCKENZIE, M.D., TORONTO.
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INJURIES and diseases affecting the long bones and producing secondary consequences which result in considerable disability, are of sufficiently frequent occurrence to be worthy of special consideration. The following cases illustrate well some of the varying causes producing deformity, some of the deformities which may result, and set forth plans of treatment which may be adopted for the relief of those so affected.

It will be well to review briefly some of the salient points bearing upon the histology and anatomy of the long bones. Some of them have several centres of ossification. The primary nucleus of the long bone appears before birth. The secondary centres generally appear after birth. Long bones do not grow uniformly in length throughout all their parts. Generally speaking, there are two areas of growth in a long bone, namely at the ends of its shaft. Here there is throughout the period of childhood and youth a section which remains cartilaginous, lying between the shaft of the bone and its epiphysis. It is here that increase in length of the bone occurs. If anything takes place which interferes with the powers of growth at this period, the resulting bone, as months and years pass, will be found shorter than its fellow. Such interference may result from disease, from fractures, and from other traumatism. Normally these cartilaginous areas become osseous at a period varying from fifteen to twenty-four years of age, according to the situation. The result of either disease or injury to the epiphysis, or in its immediate vicinity, is, in some instances, that the cartilaginous area ossifies before the normal period, and consequently growth ceases. Sometimes a part of the cartilaginous area ossifies while another part remains cartilaginous, and continues the normal increase in length. The consequence is distortion of the bone in that part.

CASE 1.—I. W., a boy eleven years of age, healthy and well developed, presented a deformity as shown in Fig. 1. At two years of age he had some disease affecting his left leg. The history given is not very definite, but the father asserts that the leg was red, swollen, and painful. Sear tissue found upon the shin shows that some operation was performed. The disease evidently extended to, or nearly to, the ankle joint. Measurement of the leg bones of both sides shows that the fibulae of the two limbs are of the same length, but that the tibia of the left leg is an inch and a half shorter than its fellow.

The father asserts that the deformity is gradually increasing from year to year, that at first when the boy began to walk after recovery from his illness there was no deformity such as is shown at present. There is no history of injury in the years that have intervened.



FIG. 1. At the left of the patient is shown a plaster-of-Paris cast of foot and leg before operation. The legs are shown as they appeared some months afterward.

The conclusion was reached that the only rational explanation accounting for the present deformity, and harmonizing with the history given, is that either the disease in itself or the operation which was performed caused early ossification of the epiphyseal cartilage of the tibia; hence, growth in the lower end of the tibia had not occurred for a period of eight or nine years. The fibula, not having been interfered with, the growth of that bone continued. The mechanical result is manifest in the fact that the fibula has pushed its way downward and inward, pushing the foot into position shown in the figure.

Treatment.—Osteotomy of the tibia and fibula might be done and the deformity corrected thereby. It was thought necessary, however, to remove a section from the shaft of the fibula; consequently an incision was made about two and one-half inches above its extremity. The periosteum was turned aside and a section

of an inch was removed from its shaft. After cutting the shaft of the tibia about two inches above its lower extremity, the foot was replaced, bringing it as nearly as possible into line with the axis of the leg. But deformity would certainly occur if the operative intervention were limited to simple osteotomy and correction of the deformity, because there still remained to the boy several years of growth, during which the fibula would increase normally in length, while the tibia would still suffer from its handicap. Hence a longitudinal incision was made over the epiphyseal cartilage of the lower end of the fibula, and the cartilage chiselled out, thus effectually checking further growth in that part of the bone.

Healing of all the parts occurred without special incident, and the result was highly satisfactory. Several years have elapsed since the operation, and the leg, as a consequence of the interference with growth at a part immediately above the ankle joint, is continuing to become relatively shorter as compared with its fellow. This is a comparatively trifling matter which can be remedied by increasing somewhat the amount of cork placed under the boot as the years pass. Moreover, when first seen at eleven years of age, and as shown in Fig. 1, the limb was more than an inch shorter than its fellow.

CASE 2.—T. W., sixteen years, presented the following history: Right foot was very much in the position seen in the former patient, but deformity was less exaggerated. Three years previously he had fractured his leg close to the ankle while jumping. The adjustment of the fracture and the course of treatment was without special incident, and I am assured by the boy's father and by his medical attendant that the foot and leg were in the normal position. Some months passed before any deformity was noticeable, but since that time it has continued to increase. It would seem rather doubtful whether the fracture which occurred was a separation of the lower epiphysis of the tibia or a fracture in its immediate vicinity. In any case, the reaction of healing was such as to cause early synostosis between the diaphysis and the epiphysis. The fibula continued to grow normally, shoving the foot inward, and repeating, though in a lesser degree, the deformity described above.

A section of about half an inch was removed subperiosteally from the shaft of the fibula about three inches above its lower extremity, and the shaft of the tibia, having been cut with the osteotome, the foot was easily placed in the normal position in its relation to the axis of the leg, so as to secure normal weight-bearing. Considering this boy's age, and that, as a consequence, there would be little increase of growth in height, it was not thought necessary to destroy the lower growing area of the fibula.

Although four years have elapsed since the operation, there has been no recurrence of the deformity.

CASE 3.—N. T., eight years old (Figs 2 and 3). Three years previously, the child had run in front of a mowing machine in action, and consequently, the leg was more than one-half cut through at a point just above the astragalo-crural joint. The posterior tibial artery, nerve and neighboring tendons were not injured. This patient was seen shortly after the accident by Drs. Rice and Welford, of Woodstock, and the various tendons and other structures were brought into accurate apposition and sutured. Healing speedily took place, and the friends and surgeons had reason to congratulate themselves on finding a straight limb and a useful, movable foot. A few months afterward, slight deformity was observed, which continued to increase as the years passed by, producing deformity similar to that described in the



FIG. 2.



FIG. 3.

former cases. The diagnosis was that the growing area at the lower end of the tibia had been destroyed, while that of the fibula escaped. Treatment similar to that adopted in Case 1 was carried out, except that the section made so as to shorten the fibula was done at the same point where the epiphysis joins the diaphysis and at the same time that the epiphyseal cartilage was chiselled out, with results that were just as satisfactory, so far as function is concerned. Such a mass of new bone, however, had formed at the seat of injury as to make perfect replacement of the foot difficult. Very marked improvement was effected as shown in Figs. 2 and 3, and no relapse has followed.

CASE 4.—B. B., a girl nine years of age, had had tubercular disease at the lower end of the femur for several years, producing knee symptoms. This was operated upon by a leading surgeon of New York, with a view of removing the focus of disease without entering the joint. The incision was made at the outer and

anterior aspect of the lower end of the femur, about two years previous to my seeing the child. The immediate result of the operation was highly satisfactory, but increasing knock-knee was manifested, a deformity which steadily increased in that leg as time passed, while the other limb remained of normal shape. My diagnosis was that synostosis had occurred in the outer part of the epiphyseal cartilage, causing an arrest of growth at the outer side of the femur, while growth continued at the inner part. I advised osteotomy for the correction of the deformity. This, however, was refused at the time, and subsequently I learned that the family again visited New York, where osteotomy for correction was done. Of the subsequent course of the case I have no knowledge.

CASE 5.—T. H., a boy sixteen years of age. Two years previously, while riding in Manitoba, the horse fell, injuring his



FIG. 4.



FIG. 5.

knee. He was confined to bed for a few days afterward, but seemingly made a speedy and satisfactory recovery. In the interim, a constantly increasing deformity resulted in the knock-knee which is shown in Fig. 4. Referring to my former experience, I could not but conclude that the outer part of the growing area toward the lower end of the femur was interfered with by synostosis, while the inner portion of the epiphyseal cartilage remained active. Osteotomy was done, and the deformity over-corrected, so as to allow for the slight amount of growth in height which might still take place. (Fig. 5.)

CASE 6.—C. C., male, aged four years; was ill in spring of 1890, with scarlet fever; had always been a healthy boy, active,

and perfectly formed. Had a long illness, made a tedious recovery; had several abscesses, one in front of the ear, one over the larynx, and one over the great trochanter on the left side. These all seemed to be superficial. He became greatly emaciated, and digestion was very poor. Was carried out of doors each day, and in autumn had sufficiently improved to be able to walk, in so doing showing a very awkward mode of movement. It was described by his father as a waddling gait. His appearance and movement were characteristic of double congenital hip dislocation. On drawing the limbs down and shoving up again, they moved through a distance of about an inch and a half, and there was felt a cartilaginous roughness in each limb, most marked in the left. No tenderness or swelling; general health excellent; had no pain; slept well.

Diagnosis.—Separation, and probably absorption of the epiphyses. I recommended fixation and extension by the use of a Thomas double hip-splint. This treatment was not adopted, and the boy was taken to an institution in the United States, where a complicated appliance was employed.

January, 1892, examined the boy again, and found that mechanical appliances of various kinds had been employed, with a view to correcting the lordosis and holding the femora in place. There is, however, little or no improvement. When the weight rests upon the feet, the trochanters are carried far above the normal line. In any case of this kind, I think it exceedingly doubtful whether an ambulatory appliance can be devised which will retain the femora in the right place in reference to the acetabula.

CASE 7.—S. B., a girl, nine years of age, first seen with Dr. Hurlburt, of Mitchell, in August, 1902. In March, 1902, she suffered from inflammation, and pain in the right middle ear, and subsequently numerous abscesses formed, two of them being in the vicinity of the hip joints. The girl suffered much, and was reduced to a mere skeleton, and no hope for her recovery was entertained. Subsequently, however, the suppurative process ceased, the sinuses closed and she regained good health. At the time when I saw her, however, she was unable to walk, also very unwilling to be examined; the legs were flexed upon the abdomen, making an angle of about one hundred and twenty degrees, and strongly adducted.

Examination revealed the fact that both femurs were displaced upward and backward, the left much more so than the right. The great trochanter of the left was felt distinctly under the glutei muscles upon the dorsum of the ilium. The diagnosis, in reference to these two joints, was that an acute epiphysitis had caused diastasis of the upper epiphyses, which were probably

gotten rid of in the abscesses above referred to, then dislocation upward of the femora naturally followed.

On coming to the Toronto Orthopedic Hospital, she was placed in the recumbent position, and extension made of both lower extremities by means of the weight and pulley. The limbs were gradually brought more nearly into line with the body, and the right appeared to have a fair degree of anchorage. Gradually, under careful treatment, she became able to walk, but with the amount of lordosis shown in Fig. 6. After the lapse of some months, during which treatment was continued in the gymnasium,



FIG 6.

it was thought well to make an effort to improve the position of the left femur in its relation to the pelvis. Under anesthesia, manipulation was made similar to that which is adopted in replacing the femur in congenital dislocation of the hip. By this means, the remaining portion of the head and neck of the femur was thrown forward, and secured a good anchorage anterior to the acetabulum, lying below the iliac spine. Upon recovery from operative traumatism, there was marked abduction and external rotation, so that after the lapse of some weeks an effort was made to correct the position of the limb. Finding success, however,

only partial, osteotomy was done just below the line of the greater trochanter, and the rotation and abduction fully corrected. At time of writing, the plaster dressing is still in position, the girl's health is excellent, the lordosis is fully corrected, the limbs are of equal length, and both have a fair degree of anchorage. While there is no prospect that she will walk quite as well as if the disease had not affected her joints, yet I am confident that she will have an erect figure, a fair degree of motion in each joint, and a gait not greatly noticeable as departing from the normal.

There is another result which is consequent upon pathological conditions existing in epiphyseal cartilages which is worthy of mention. When chronic disease has existed at the knee during the growing period, affecting as it does by congestion the epiphyseal area of both the tibia and femur, it is found that the affected limb is considerably longer after some months or years than its fellow. The explanation is found in the fact that the extra amount of blood present in the vicinity of these growing areas causes a growth which is beyond the normal.

Doubtless there are other and numerous traumatism and pathological conditions which affect growing bones in the vicinity of the joints, and producing disability or deformity not here referred to, but the above will serve to illustrate a number of conditions which have received but little attention in surgical literature.

NOTE.—Cases 1 and 6 were previously published.

NOTES FROM A RECENT TRIP TO NEW YORK.

BY JOHN HUNTER, M.B., TORONTO.

THE physician, for many reasons, should have an outing at longer or shorter intervals. His life is an exacting one, and demands a very high degree of both mental and physical vigor. He should always strive to keep up his mental and physical equipment like the engines on those fast express trains. With what confidence the engineers turn on the steam, knowing full well that their iron steeds can acquire a speed of sixty, eighty, or perchance one hundred miles an hour. The acme of efficiency should be our talisman. I have no hesitancy in stating that the most frequent and heaviest losses to our professional standing, as well as to our financial interests, come to us from the effect of mental and physical fatigue, rather than from our lack of knowledge or want of skill. How many times have doctors been disappointed and discouraged, when for consultation and help they have called in a man of good attainments, only to find his judgment and skill

so impaired by fatigue as to be of little or no value. It cannot be emphasized too strongly that it is the imperative duty of every one aspiring to do first-class work, to so adjust his work and time as to have the rest and change necessary to keep his mental and physical powers at their highest point of efficiency. Shrewd, practical railway companies know from experience that the best work on their fast trains can only be obtained by restricting the hours of work, both for engineers and engines. The slow locals and freight trains can keep on going all day, so in medicine the scientific worker must set his limitations. It is only the man who is indifferent about the character of his work, or slovenly in his methods, that can plod along from year to year without the inspiring and vitalizing influences that rest, travel, and change of scene can bring. Life is worth living, so let us strive to be always at our best, and always endeavoring to do our best for those who seek our aid, as well as for the honor of our noble profession.

Acting on the maxim, "That whilst one is not obliged to believe all he hears, he is expected to believe all he says," and so testifying to my belief in all I have said, I packed my grip, and soon reached my first stopping-place—Buffalo. This city is a great manufacturing centre. Its spacious avenues, lined with shade trees, stately homes, and beautiful parks, make it a very desirable place to live in. The side-walks in many parts of the city are abominable. The law there is for each property owner to build the side-walk in front of his property, so each street may have many varieties. Along vacant lots, planks, two or three in width, are placed end to end, but as in many human projects, they come out sometimes large and sometimes very small. Their centre fibres, too, like the moral fibres of politicians too long in office, are not to be trusted, hence walking is rather difficult and dangerous, even on many a fine residential street. I had the pleasure of seeing an operation for appendicitis done by Dr. Roswell Park, whom we had the honor of meeting in Toronto lately. Dr. Palmetter also operated. For anæsthetics, they began with the chloride of ethyl, and continued with either chloroform or ether. In one case—a strong young man—after a few whiffs of the ethyl chloride, the jaws became so firmly locked that they could not be forced open until he came under the influence of chloroform.

The run from Buffalo to New York takes about twelve hours. The Lehigh Valley R. R. passes through many prosperous cities, towns, and villages, past coal mines, surrounded by mountains of debris—the waste products screened from the coal. The fields have yielded their rich harvest of wheat and other grain, the woods are resplendent in autumn tints, and the orchards seemed like workmen resting in the evening, satisfied that they

had done their duty in carrying on the work of a beneficent Creator, in providing luscious fruit for the needs of man. Two years have elapsed since my last visit, but even in that brief space of time, New York has made marvellous progress. Massive new structures of stone or marble everywhere. There will soon be a very extensive system of underground railways. Automobiles in endless designs are rushing hither and thither at racing speed. Fifth Avenue, in the afternoon, presents the greatest display of wealth in equipage and dress to be seen anywhere in the world. The one all-absorbing topic, in the newspapers and on the streets, was the election of mayor and other city officials. The Republicans and Fusionist-Democrats, who supported Low two years ago, claimed to have had two years of honest, clean government. The wildest cries of political corruption were raised against the Tammany ticket, and its members pictured in cartoons of the fiercest and most diabolical character. The majority of the great newspapers, and nearly all the prominent preachers, denounced Tammany, but, strange to say, a large majority of the readers of these papers, and of the people who attend these churches, voted the straight Tammany ticket. These editors and parsons are doing a heap of thinking in trying to figure out the influence in mental and moral units they exerted on the voters. Two years ago I had a splendid opportunity of hearing Seth Low and his cabinet enunciate their platform, and this year of hearing McLellan, and whilst Seth Low gave splendid service, yet I have no hesitancy in saying that McLellan will not only maintain, but improve upon, the high standard of excellence his predecessor has established.

With all great circuses, there are usually some fakir side-shows; so, following in the wake of the great municipal menagerie, where the political gladiators, Low and McLellan, Jerome and Burke Cochrane, were slashing each other, aside in the Madison Square Amphitheatre tens of thousands from curiosity listened to John Alex. Dowie, *alias* Elijah III., quasi-preacher, prophet, divine healer, and real estate exploiter, with his restoration hosts. The Rev. John Alex. impiously asserts that preachers, doctors, editors, and devils belong to one and the same class, and all are equally diabolical in their mission. This impostor is rather short of stature. He has a bald pate, and long white flowing locks, broad face, short pug nose, and heavy white beard. He struts back and forth on the stage, and generally speaks in loud, harsh, bombastic tones. He is very corpulent. His abdominal cavity would make a fine gas tank, and it must be from this borborygmous geyser that he gathers the inspiration for the vile and blatant epithets he hurls at doctors and others who despise this ignorant, brazen-faced, rapacious hypocrite. There is one

thing about Dowie that challenges attention; his shrewd business tact in advertising Zion City. More than half of all the twenty-two tons of literature distributed by his restoration host on every street and by-way in New York, extolled the virtues of Zion City as a sure and very profitable place for investment.

As light diet is more suitable for late hours, I will leave the purely scientific, medical and surgical notes for further consideration. Election morning came; all the doctors were taking a holiday, and, although it was said votes were bringing a high price, I could not barter mine, having been nurtured in a party that eschews evil, so had nothing to keep me in town. I arose at 5 a.m., and, notwithstanding the restrictions Price-Brown and O'Reilly put on cold baths, I enjoyed one as usual, and afterwards took street car and ferry for Jersey City, and boarded first train for Philadelphia. Rambling through Wanamaker's big departmental store, a fac-simile of Eaton's, I came into a handsome dining-room. It was very amusing to watch the facial expressions of the darky waiters as they brought back the change. If the guest pocketed it all, their faces immediately became oblong, 4 by 9, but if a tip was left out, they were instantly transformed into squares 6 by 6.

The run from New York to Washington impresses one with the extent of the immense manufacturing interests of these Eastern states. Cities, towns, and villages furnish an almost unbroken chain, and smoke and flame from factory chimney are in evidence everywhere. In Baltimore, I met our fellow-townsmen, Thomas Cullen, who combines brilliant attainments with an exceedingly genial personality. Baltimore, in intelligence, morals and commerce, is said to be the peer of any other American city, yet it has its unique features. The buildings are mostly of red brick, of Puritanic simplicity. Many of the main streets have been paved with prehistoric rocks, and these, like unto their contemporary boulders along the north shore of Lake Superior, have developed very irregularly. If our doctors who aspire to "dash round" in their automobiles, were to try their vehicles on a street in Baltimore, they would have at least some valid excuse for abandoning them a few blocks from home, but would have less cause for being so irate as they scurry down town to "sic" a lawyer on the sly agents and astute manufacturers whom they think have gulled them so mercilessly. As for bicycling—a spin of twenty miles before breakfast—well! I desisted, after reflecting on what Bruce said at the last meeting of the Ontario Medical Association, about a patient of his who had come to grief after attempting to take amongst the boulders of Muskoka what the doctor considered too violent exercise.

The side-walks have been paved with bricks from moulds of

many shapes and sizes. However, it is never monotonous walking, for whilst picking your steps, you have time to observe the great variety of wavelets of soap-suds, boarding-house soup, and other waste products from the art of domestic economy. A moribund cat, rat, or mouse contributes a variety in odors, for here all surface drainage flows "Gentle Avon" like, along either side of the street. Not making rapid progress walking, I stepped on a street car, and this much can be honestly said of the car service, that you need not stop the car to get on or off, for the difference in speed when going or standing still is none too acutely perceptible. On reaching Broadway, a new asphalt-paved, stately street, one stands transfixed as he gazes on the majestic pile of buildings known throughout the world as the Johns Hopkins Hospital. The main building, of vast dimensions and artistic design, is built of red brick with stone facings. It, and the other twenty or more structures associated with it, occupies an elevated plateau of many acres in extent. The grounds are very pretty. Winding paths with rustic seats, trees, shrubs and flowers—all the princely gift of the late Johns Hopkins. What a boon it would be to our Medical College to have a few of our rich men like-minded. Passing through the portals, one enters the rotunda. Here is a massive statue in marble, with a mantle thrown over the left shoulder and draping the body. The pierced feet, the outstretched hands, and a gaze at the face, expressive of such matchless benevolence, inspires the beholder to exclaim, "Ecce homo!" On the pedestal are engraved the words, "Come unto me all ye weary and heavy-laden, and I will give you rest." Gracing the left wall is a life-sized and very life-like painting of Johns Hopkins. In figure and expression there is a resemblance to Sir John A. Macdonald. The characteristic distinction in the depth of the furrows on the face of a business man and a politician is well shown in the picture. In the former, they are deep and permanent; in the latter shallower and more evanescent, as influenced by defeat or victory. Leaving the rotunda, the operating rooms, private and public wards, kitchens, etc., are found to be spacious and thoroughly equipped. The corridors connecting the different buildings are wide and long, and can be kept open or closed, thus furnishing ideal promenades in all kinds of weather. The very high official positions held by our fellow-countrymen, Professors Osler and Cullen, are intended as two-fold benefactions: first, as a tribute to their brilliant intellectual attainments and honesty of purpose; secondly, as some measure of compensation for having to live in Baltimore instead of Toronto. The professional staff of Johns Hopkins must have used up an enormous supply of clinical material in building up their world-wide reputation, for on leaving for Washington, about the first object in the suburbs.

to excite the traveller's attention is an unusually large and most densely-filled cemetery.

The scenery along the route from Baltimore to Washington is not very attractive. The land is inclined to be flat and marshy. Washington, of all the American cities, is, *facile princeps*, the paradise of politicians and bridal parties. I was rapturously extolling the beauties of Washington to one of her citizens. He listened attentively until my supply of adjectives was exhausted, and then, in Yankee tones, admitted that the city was beautiful, but declared that there were more suicides in Washington than in any other city. I asked, Why? Well, he said, there are a great many politicians here who are obliged to commit suicide to cover up their deeds. Our Province would gladly part with a lot of her politicians in this or some other equally effective way. The avenues are paved with asphalt, wide, and shaded with trees. In the numerous parks are botanical gardens, containing all manner of trees, shrubs, plants, and flowers of every "clime" from pole to pole. The avenues and parks lend themselves admirably as resorts for honeymoon parties. Custom puts no restriction on the most gushing demonstrations of love. Young Samboes, with their dusky brides, whose blushes nature kindly obscures, are very much in evidence. One feels somewhat inclined to envy Sambo, when he recalls the exquisite bliss he experienced when kissing the tiny lips of his sweetheart. How immense must be the ocean of Sambo's bliss, when such a large expansion of ruby lips come in contact in the osculatory act.

The lofty Capitol, with its Corinthian pillars, marble walls, and massive dome, is situated on an elevated plateau, reached by tiers of marble stairs, and wide balustrades. The rotunda is ornate with great marble columns that support the dome. Its walls are lined with what seems to a Canadian, at least, much over-colored paintings—scenes representing the surrender of Lord Cornwallis, and other military episodes in which the British are doing all the surrendering. A painting of the battle of Queenston Heights, or the capture of Detroit in 1812, would have given the eye some relief from such brazen glory.

Senate and Congress have spacious apartments in either end of the building. Strolling into the Supreme Court chamber, I was surprised to hear a lawyer declaiming to the court dignitaries that France had no legal status as a republic or nation, and that such an innominate conglomeration of people need not be recognized by us of this mighty republic. Perhaps if France would hang up some old paintings of William the Conqueror's invasion of England, the Yankees would acknowledge her as a republic.

The two-story flat-roofed White House, with its marble walls and columns, its spacious red, white and blue rooms with their lux-

urious trappings, the occupation of which, as a residence, is the cope-stone of Yankee ambition. The wide and ornate corridors, adorned by paintings of present and past presidents and their wives, are ever-resounding to the ceaseless tramp of loyal citizens. Encircling parks, sparkling fountains, and fragrant flowers are its settings. Across the street is the U.S. Treasury. This place would delight Powell's heart, for here women count all the money. They have to count it, too, twenty times over before men take it from them as correct. With deft and lightning speed, feminine fingers count out, on an average, a million dollars a day. In another department, expert women sort over all worn-out money to detect counterfeit bills, etc. What these reject is passed on to men to put in macerators, to be ground into pulp. Here women conserve whilst men destroy. What a picture of the race: Woman on billowy bosom and downy cot, rearing the race; whilst man, on gory battlefield with sword, shot and shell, destroying his fellows.

Washington's monument rears its ponderous marble walls six hundred feet heavenward. Tourists, thirty at a time, are taken up in the elevator five hundred and thirty feet, whence they can obtain a panoramic view of Washington and surrounding country that, in wealth of range and beauty, is scarcely surpassed in the most ecstatic dreams of imagination. The Congress Library is a poem in marble. Its rotunda—in size, artistic design, and richness of material—is said to have no equal in architecture. The massive guns, manufactured at the Navy Yard for fort and warship, are fierce-looking objects. The National Museum is the world in miniature, and its medical section an immense storehouse of the normal and morbid anatomy of the human, and all all other species of animate life.

THE SURGICAL TREATMENT OF HALLUX VALGUS AND BUNION.

BY JAMES NEWELL, PH.D., M.D., WATFORD, ONT.,

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THE term *Hallux valgus* implies abduction of the great toe. The extent of this abduction is variable, but it is usually to a marked degree. By *bunion* is meant the swelling and hypertrophy of the tissues over the internal aspect of the metatarso-phalangeal articulation of the great toe, and is extended so as to include the hypertrophied head of the metatarsal bone, and the overgrown base of the first phalau.

Hallux valgus precedes bunion, and is caused by ill-fitting boots, which are too narrow, causing crowding of the toes. In the natural condition of the great toe, a line drawn through its centre and extended backward will be found to run through the middle of the heel, but it is very rare to find in the adult a foot which is normal. This outward deflection of the great toe uncovers the head of the first metatarsal bone, and with this there is also a slight outward dislocation of the base of the phalanx. Owing to this there ensues an inflammatory condition of the tissues, followed by swelling, hypertrophy, and frequently a false bursa. As the dislocation proceeds, the tendon of the extensor proprius pollicis becomes displaced outwards, and when this displacement becomes well marked a distinct exostosis is very frequently formed. I have thus very briefly outlined the causes which lead up to this deformity.

Treatment.—So far as my experience goes the conclusion has been forced upon me that the palliative or usual treatment resorted to has not been followed by permanent benefit. Of course, properly fitting shoes with a straight internal border, roomy at the toes, but with no dead space, must be advised. Sometimes also there may be a gouty or rheumatoid arthritis which should receive proper medical treatment.

If seen in the early stage of the disease, and which is rare, an appliance to keep the big toe in its proper place may be tried, or a sock having a separate compartment for the great toe. Sometimes placing a roll or wad of cotton between toes, or the wearing of a boot having a separation, or division, rising up from the insole, is found to be of service. Various splints, springs, plasters, traction by elastic, etc., are in use and will afford relief in the early stage of the disease. When, however, the deformity is well marked, and the uneasiness and pain are severe, it is necessary to proceed to operative measures.

Various operations have been employed in which the relief and benefit which followed was an uncertain quantity. Thus such cases have been treated by a straight incision, removal of the false bursa and excision of the exostosis by the chisel or bone forceps, but the result was not what was expected. There are also several other methods which have their advocates. The operation which I have done, and will proceed to outline, has been followed by complete and permanent relief, both of the hallux and bunion.

As the operation is radical and a rather extensive one, involving the laying open of the joint and amputation of the head of the first metatarsal bone, it demands thorough and complete asepsis in the field of operation, instruments, hands dressings, and everything that may come in contact with the wound. The foot should be thoroughly scrubbed and washed

with hot water and soap, and I have found brown soap, such as is to be found in every house, to be as good as any. This is followed by bathing with gasolene or oil of turpentine; wash off with soap and water again, and apply a 1 to 500 solution of corrosive sublimate, or a cream of the chlorinated lime and sal soda. Then finally wash off with sterile hot water. Do not forget to give special cleansing and disinfection to the skin between the toes. The operator's and assistant's hands must also be thoroughly washed, scrubbed, and disinfected, as may be preferred, not forgetting the interdigital skin and nails. Personally I have a predilection in favor of chlorinated lime and sal soda to disinfect the hands. I find it does not roughen them like corrosive sublimate. The operation which I do is the "Tubby operation," and the technique is as follows:

An incision from two to three inches long is made on the inner side of the big toe, with its centre over the bunion. This incision may be straight or curved, or it may be made to include the skin over the false bursa, if there is one. This false bursa must be excised before the incision is carried down to the joint, and its contents not allowed to escape and infect the wound. The incision is now made down to the bone, and the tissues are dissected and separated from the bones. This having been done an assistant thoroughly retracts the tissues, when the joint is freely opened, and the ligaments completely divided. It will now be found that the great toe can be easily turned outward, completely exposing the head of the metatarsal bone. As one of the objects is the removal of the head of this bone, no difficulty will be experienced in inserting a small metacarpal saw and dividing the bone just behind the articular cartilage. The bone should be sawn through obliquely from above downwards and backwards. It is of importance to keep this in mind, as it leaves a much better joint. After the removal of the head of the bone, the sharp edges must be cut off with a pair of bone forceps, and especially so on the outer surface, so as to remove any pressure from the branch of the internal plantar nerve. The under surface also requires to be carefully trimmed, so as not to be irritated by the sesamoid bones. Any exostosis that may be found on the metatarsal bone should now be removed by bone nippers. The wound may now be sponged out with sterile gauze. I have generally operated by the bloodless method, and have never had to ligate an artery. When bleeding has ceased the wound is closed by silk-worm gut sutures. I then place a pad of cotton between the great and second toes, so as to straighten the big toe, and if it is adducted a little, no harm will result. I now apply a light dressing of sterile gauze and place a sheet iron splint on the sole of the foot and big toe, with a piece turned up between the great and second toes to pre-

vent outward deflection. The part of the splint under the toe is curved upward, so as to cause the great toe to point slightly upwards. Next a rather plentiful quantity of sterile gauze is applied over the foot to absorb any serous or bloody discharge, a bandage is applied to the foot and half way up the leg, and the patient placed in bed with the foot elevated. Should the dressing become soiled it must be removed to prevent wound infection. Remember this should not take place, or the results will be bad in more ways than one.

The stitches may be removed in ten days, the splint and pad re-applied, and the foot dressed as after the operation. When the wound is completely healed, passive movements in the joint are instituted in from two to three weeks. The patient may now be allowed to go out, but the splint should not be removed till the end of the month. The pad of cotton between the toes may be kept much longer so as to prevent a return of the hallux valgus. Bunions are looked upon as among the lesser evils, but their common prevalence, the trouble and pain of which they are the cause, induces us to seek out a means whereby we may obtain an adequate and permanent cure.

The final result of this operation leaves nothing to be desired. The foot is restored to its normal appearance, the toe is returned to straight line, but slightly shortened, and the lameness and pain have vanished.

FIXATION OF THE PROLAPSED KIDNEY.*

BY DR. AUGUSTIN H. GOELET, NEW YORK.

[*Abstract.*]

THE author submits a technique of his own employed with uniform success for three years, and argues that the many modifications of the operation prove its necessity and the inadequacy of all mechanical appliances as belts and corsets, except in cases where the kidney has not descended below the border of the last rib in front to prevent further descent, and after operation to support the abdominal organs and insure a feeling of greater security to the patient.

The indications for operation are prolapse of the kidney to the third degree, viz., when the kidney has descended below the border of the lower rib in front, and the upper pole can be palpated when the patient is in the erect position, because it is then an anomalous condition that should not exist and is not conducive to either health

* Read in Section on Diseases of Women at the Fifty-fourth Annual Meeting of the American Medical Association, at New Orleans, May 5-8, 1903.

or comfort. In addition, the position of the kidney interferes with its circulation and function, and with the flow of urine from the kidney, and by compression of the ovarian vein which it overlaps gives rise to pelvic disease.

He emphasizes the importance of careful preparation of the patient for the operation to obviate post operation vomiting which strains the freshly attached kidney and loosens it from its anchorage.

The chief objects to be accomplished are: Permanent fixation of the kidney in its normal position; complete detachment of the colon from the organ to obviate subsequent dragging upon it by the distended bowel; the avoidance of mutilation of the kidney and of the patient, and cure of the symptoms and conditions produced by the prolapse.

The author's technique is briefly as follows: The kidney is reached by a vertical incision along the outer border of the erector spinæ muscle, the muscles being separated in the direction of their fibres; the fatty investment of the kidney is opened by a vertical incision near the spinal side of the wound, and the kidney is delivered through the incision upon the surface of the back. The fatty capsule is then completely detached upon both the anterior and posterior surfaces, care being taken to detach the colon completely. The redundant fatty capsule is trimmed off on both sides. The fibrous capsule of the kidney is not detached or otherwise disturbed. The sustaining sutures, two in number, are inserted only under the fibrous capsule, each having three insertions through and under this fibrous capsule, and the ends are brought out through all the structures of the back at the upper angle of the incision in the skin and are tied over a fold of gauze to avoid cutting by the suture and loosening of the loop. The suture material used is silk-worm gut and the sutures are removed after three weeks. The wound is closed by two layers of cat-gut suture, one uniting the superficial fascia, and the other the skin margins. A gauze drain is inserted about the lower pole of the kidney and brought out at the lower angle of the wound. This aids in supporting the organ, taking the strain off the sustaining sutures during the first forty-eight hours, after which time it is removed.

The author enumerates many reasons why nephropexy may prove a failure, the chief being as follows:

Postponement of the operation until the kidney is seriously disabled or an incurable pyelo-nephritis has developed, or until the health of the patient is permanently shattered;

Failure to completely detach the colon from the kidney which may drag the kidney away from its anchorage or give rise to annoying pain;

Failure to immobilize the kidney until it can become permanently adherent by employing absorbable sutures or by attaching

them insecurely to structures that yield to the constriction when it is tied; and

Fixing the kidney too low down where it will be irritated by pressure of the corsets or clothing constricting the waist.

The author concludes with a record of 159 nephropexies by the method he describes on 126 patients, in 33 of these both kidneys being fixed at the same time, without a death and without a single failure to secure permanent fixation. The ultimate results were cure of the symptoms and conditions depending upon the prolapse in all of the cases he has been able to trace, in from two to twelve months after operation.

TWO CASES OF NORMAL PREGNANCY FOLLOWING OPERATIONS FOR EXTRA-UTERINE PREGNANCY.*

BY FRANCIS D. DONOGHUE, M.D.,

Instructor in Clinical Surgery, Tufts Medical School, Boston, Mass.

THE fact that a woman who has recovered from an extra-uterine pregnancy is liable to a similar accident in the proportion, according to Pestalozza, Sens, and Varnier, of one in four, makes the report of cases of normal pregnancy following operation for extra pregnancy of interest. Two cases of normal pregnancy and confinement, one occurring after a vaginal operation, and the other after an abdominal, the past summer, seemed worthy of record and of interest to believers in conservative pelvic surgery that seems so necessary if we are to do our part in preventing "race suicide."

The cases of extra-uterine pregnancy group themselves naturally into (a) the cases in which the tube is ruptured, or aborted; and (b) the cases diagnosed before rupture. The first group also divides into cases of pelvic or broad ligament hematocele and free hemorrhage into the abdominal cavity. Hematocele into the broad ligament or slowly forming pelvic hematocele can well be watched and operated upon, or not, as the conditions warrant. Cases in which the hemorrhage stops after the formation of a moderate-sized hematocele can well be treated expectantly. The dangers of expectant treatment are renewed bleeding, and the clot becoming septic. When the hematocele becomes septic, operation through the vagina seems to offer the best chances of recovery. Hemorrhage into the abdominal cavity demands entirely different treatment. The signs are unmistakable—a sudden, sharp pain, faintness, pallor, weak or no pulse, and dulness rapidly develop-

* Read by invitation before the Celtic Medical Society of New York, Academy of Medicine, New York, April 23, 1903.

ing in flanks. In these cases, operation at once is indicated, and necessary, without intravenous saline infusion, or if pulse is extremely feeble or absent, *after* infusion. Waiting for reaction from the shock is dangerous, *as reaction may never come*. In these cases it is usually sufficient to tie off the offending tube, and close cavity without drainage to obtain recovery. The other tube should be invariably left, or if markedly diseased, should be resected, condition of the patient permitting, and left with a newly-formed ostium.

All cases, it would seem, should be carefully watched after recovering from operation for an extra-uterine pregnancy. As with an increasing number of reported results normal pregnancy, it appears, is many more times apt to occur than a repetition of an extra-uterine, we would seem to be doing right when we conserve the pelvic organs of our patients with a view to future pregnancy, but careful watch should be kept for the slightest deviation from normal menstruation after operation.

The question of election by the patient of the treatment desired has been discussed, not so much in this connection as in the case where Cæsarian section is indicated for marked pelvic obstructions.

Disinfection for Schools.—A bill passed by the Legislature and signed by the Governor of Pennsylvania makes it the duty of school directors, trustees, or other persons having control of any school or college building to adopt and immediately put into operation a modern method and system of disinfection.

"Mens sana in corpore sano."—Dr. J. H. Carstens, of Detroit, in his address as Chairman of the Section of Obstetrics and Gynecology of the American Medical Association, said: "We must see to it that a young woman has a sound body if she wants to acquire knowledge; it is more important to have a healthy body than to possess great learning. We must oppose the cry that too much is being taught in our higher schools or the universities, that the demand on the mind was too great; for that was entirely wrong. *We must teach that everybody is not born to that higher education*, that only those should attend the higher institutes of learning who have the attributes of the mind that enable them to *learn easily and quickly*, and that even these require plenty of exercise and fresh air. We should insist that gymnastics and systematic physical exercise should be taught in every school in the land, from the lowest to the highest, and that the curriculum of study should embrace the most systematic course of gymnastics to produce a *sound body with a sound mind*.

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

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Editorials.

EUTHANASIA.

EUTHANASIA has found another advocate in the Rev. Merle St. Clair Wright, who, in an address made before the State Medical Society of New York, favored the putting of incurables to an easy and painless death.

"I appreciate the practical difficulties in the way of the application of the doctrine," said Mr. Wright, "but it seems to me that it is not beyond the bounds of possibility. Of course, it

would be necessary to have the advice and approval of men of the highest scientific attainment. The city might be divided into districts and every application should be considered most carefully, not merely by physicians, but by some eminent clergyman selected for the purpose. And, of course, there should be the consent of relatives and the consent even and request of the patient himself. But where all these conditions are fulfilled and where the prolongation of life is simply the prolongation of hopeless agony, it seems to me that it would be proper that such a patient should quietly, decently, modestly be allowed to end his sufferings. It seems to me that such a course would be a step forward in civilization and a step farther away from barbarism."

It is said that this address caused much surprise, because of its source, but that it was received, nevertheless, with hearty applause, the plain inference being that the assembled medicos were in favor of putting incurables to death. We are not in harmony with this view, and, furthermore, we think it does not represent the opinions and wishes of the great majority of American physicians. Every physician can recall a case in practice, in which, all hope of cure being given up, it might have seemed a mercy to put an end to the sufferer's misery and constantly recurring pains. Yet, be it said to their honor, while physicians grasp at the manifold resources of medical art in order to relieve pain, they refuse to shorten by a single instant the life of the most wretched sufferer. To relieve pain and suffering is the noble office of the physician—to kill is the office of the executioner.

When about to abandon the siege of St. Jean d'Acre, Napoleon Bonaparte, who commanded the besiegers, suggested to Larrey, his chief-surgeon, that, before the camp was deserted, lethal doses of opium should be given to the sick and wounded French soldiers who were unable to march, rather than that they should be allowed to fall alive into the hands of the merciless Turks. Larrey's reply did honor to himself as well as to his profession—"It is the business of a physician to save life, not to take it."

Euthanasia procured by a physician would be simply homicide, and it is quite certain that sufferers from cancer cannot be deprived of life, even at their own request, in order to shorten a week, a month, or a year of pain.

Soaring higher and farther than the desire to end human

suffering, claimed by Mr. Wright and those who agree with him, the utilitarian spirits of the day might easily find other applications for the principle involved. For instance, they might contend that untold suffering and misery might be spared, if the incurably insane could be made victims of euthanasia. Why, they might say, allow senile demented to take up the time and consume the patience of relatives or attendants, when their useless lives might be appropriately shortened by an appeal to euthanasia? Or, why should idiots be allowed to prolong their inane lives, and why should asylums be supported out of public funds for the training of feeble-minded children? Then, if the utilitarian argument is to apply to hopeless pain, decadent age, and fatuous childhood, why should it not be extended to persons who have given evidence that they are the unhappy possessors of uncontrollable criminal instincts and passions?

Already we see, in perspective, enormous developments of the principle of euthanasia. Only this difficulty crops up: Should the State look to the noble profession of medicine for aid in a campaign for euthanasia, it will look in vain. We have too much confidence in the good sense and right feeling of the great American people to suppose for a moment that euthanasia will ever be countenanced in the United States. But even if, like other fads, it should become the recognized cult of some extremists, the necessary taking-off of the patients will not be done by medical men; *non tali auxilio*.

J. J. C.

THE PREVENTION OF PNEUMONIA.

THE prevention of pneumonia would seem, at the first blush, to be a rather hopeless venture; but an inquiry into its causes, active and predisposing, leads one to think that more may be accomplished in this direction than appears on the surface.

The generally accepted specific cause of pneumonia is the pneumococcus, known also as the micrococcus lanceolatus, because of its lance-shape, and the diplococcus, because it is united in pairs. It is present in the atmosphere and in dust; but, being a parasite rather than a saprophyte, it may be found once out of five times in the saliva taken from healthy people. It may also be found in the nasal mucus, and even in the intestine. It is

present in almost 90 per cent. of all cases of fibrinous pneumonia; but appears to be gifted with a certain architectural ability, so that, even in the respiratory apparatus, it may excite broncho-pneumonia and bronchitis, as well as lobar pneumonia.

"It frequently causes suppurations in the serous membranes, meningitis, pericarditis, pleurisy, peritonitis, characterized by the presence of exudations, which are of a greenish color, of a thick, semi-solid consistency, and rich in fibrin. The pneumococcus may also produce arthritis, otitis, parotitis, endocarditis (malignant or ulcerative). More rarely it invades the whole organism, and develops a septicemia." (Roger.)

The usual avenue of infection is the respiratory passages, probably the lung itself. Dr. Menzer says that it may occur through the tonsils. Dr. Class, of the Chicago Health Department, who has been studying pneumococcus sore throat, both bacteriologically and clinically, says that in a good many cases of pneumonia, tonsillitis of pneumococcus origin frequently preceded the pneumonia. The inference from his observation would be: that the pneumococcus might enter the system by way of the tonsils, and thus cause pneumonia; or that this coccus, gaining increased virulence by growing on the inflamed tonsils, would become so toxic that a pneumonia would result when, by some means, it entered the lungs.

Excessive indulgence in alcohol is one of the most universally recognized predisposing causes of pneumonia. "In the large proportion of cases admitted to hospitals the disease follows a debauch" (King). Many cases also follow exposure to cold and wet. Even robust men, who are exposed to the inclemencies of the weather, are frequently attacked by the disease, so much so, indeed, that it was once thought to have an affinity for persons in full vigor. In many, if not in the majority of, cases, however, there has been some impairment of health; over-work, alcoholism, some chronic disease, bronchitis or nasal catarrh, has lowered the individual's power of resistance, and thus left him more susceptible to the invasion of the pneumococcus. An individual debilitated by over-indulgence in alcohol, indigestible food, etc., fatigue from exhausting toil, or the weakness arising from old age, may catch a pneumococcus sore throat, the pneumococcus being already present in his saliva; or if he already has a tonsil-

litis, he may be exposed to the coccus of pneumonia in a virulent form, by inhaling dust from the floor of a room occupied by a pneumonia patient.

The direct contagion of pneumonia does not appear to have been recognized in the past by physicians, yet there are men practising to-day in Ontario, who are prepared to certify that they have seen epidemics of pneumonia, in which persons, who had been exposed to the infection fell ill in regular order, just the same as has been noted in outbreaks of smallpox.

Successive cases have been noted in the same locality, as in the house referred to by Schroder, which furnished 32 cases to the clinic of Kiel in fifteen years, 6 of them in one year. Besides epidemics of pneumonia, including many cases in rapid succession, have been repeatedly observed in camps, prisons, and on ships. Tyson refers to 410 cases among a ship's crew of 815. Much more might be added on this score; but enough has been given to draw attention to the prophylaxis of a very dangerous disease.

It would seem appropriate, therefore, (1) that care should be taken by physicians and nurses to isolate pneumonia patients, and very great care to provide for the methodical disinfection of their sputa by steam or fire. A pneumonia patient should continue to use a spit-box until cured of the disease. (2) During the season of closed doors and windows, ventilation should be practised, sunshine being allowed to penetrate into, and fresh air being permitted to flow through, rooms which are regularly or occasionally inhabited. (3) Attention should be paid to the hygiene of the mouth and nasal passages by each person, and the wants of children, in this respect, should be attended to by their parents. (4) The gospel of hygienic living—exercise in the open air, with avoidance of over-eating and stimulants—should be widely preached.

J. J. C.

EDITORIAL NOTES.

The Pathology of Acute Rheumatism and Allied Conditions

—In the *British Medical Journal*, September 19th, 1903, p. 659, appears a progress report on the chemical pathology of acute rheumatism, by Drs. Walker and Ryffel. The authors state that in a previous note they have published their views on the biologi-

cal characters of the micro-organism originally observed by Triboulet. To this organism they venture to apply the distinctive term "micrococcus rheumaticus." By inoculating rabbits with it, they produced all the manifestations of rheumatism, excepting chorea and cutaneous erythemata. In the last note they particularly study the chemistry of the micrococcus, particularly the property it possesses of producing formic acid. They conclude that the "micrococcus rheumaticus" produces a considerable quantity of formic acid, and also at least one other acid of the fatty series. Formic acid is present, not only in the filtered cultures of the organism, but it can also be extracted from the bodies of the micro-organism themselves. The authors remark that ordinary streptococci, such as a streptococcus isolated from a case of erysipelas, only give rise to a small quantity of formic acid. This observation may constitute a means of differentiation between the rheumatic organism and other members of the streptococcus group. Besides formic acid and probably another fatty acid are present in the urine during the course of acute rheumatism, in appreciable amounts, whereas they are either altogether absent from normal urine, or else occur in traces only. Under the influence of the salicylic acid treatment of rheumatic fever, formic acid, in the opinion of the authors, is reduced in quantity in the urine of the patient. The authors have also succeeded in extracting formic acid from the tissues of an animal (rabbit) suffering from acute arthritis, due to the inoculation of the micrococcus rheumaticus. They say further: "The connection of formic acid with the activity of the rheumatic micrococcus is of considerable interest in relation to the evidence of country folklore, since it is currently alleged that persons who keep bees, and are thus frequently subjected to the action of formic acid are peculiarly insusceptible to rheumatism." They also state that there are already indications that the beneficial action of salicylates in rheumatism may find a simple chemical explanation.

Appendicitis and Opium.—Dr. Ch. Krafft, of Lausanne (*Revue de Chirurgie*, 1903, No. 4), discusses, with a good deal of earnestness, the question: Should a physician give opium to a patient who is attacked with appendicitis? First of all he devotes great attention to the chief sign by which colitis (medical appendicitis) is distinguished from periappendicitis (surgical

appendicitis). This sign is not dulness, which is lacking in 30 per cent. of the cases of appendicitis. Neither is it the "wet pasteboard" feeling described by Roux, which does not exist at the beginning of the disease, and is not found at all, unless a phlegmon develops. It is acute pain which is never wanting in such a case, and which is revealed on making methodical palpation. In catarrh of the whole intestinal tract, in colitis, all observers agree that castor oil should be given freely. If the appendix and its envelopes are the sole cause of the trouble, and in such an event, palpation, by irritating the tissues at the McBurney point, will make the case clear, opium should be given. Dr. Krafft then strives to prove: (1) That surgeons do not use opium as a treatment of appendicitis, but simply to allay pain and check peristalsis, until an operation can be done; (2) that purgatives and clysters are dangerous, because the peritoneum, which in periappendicitis is always inflamed, is heavily handicapped in its efforts to encapsulate the disease, if it is disturbed by irrigations administered per os and per rectum. To sum up: The author concludes, that in appendicitis, which he thinks should be called periappendicitis, an operation done at the selected time is the sole rational treatment; opium is an aid to the operation; it soothes the patient, and by the intestinal repose which it procures, favors the formation of adhesions. Clysters and purgatives are useless, and may be dangerous. Their use ought to be condemned as soon as the surgeon demonstrates the existence of tenderness at McBurney's point.

Kernig's Sign in Pneumonia.—Kernig's Sign, *i.e.*, that in the dorsal decubitus, the patient can easily and completely extend the leg, while in the sitting posture the leg cannot be completely extended is recognized as a sign of meningitis. It was recently recognized in a man affected with pneumonia in the right lung of the migratory type, who was under the care of Dr. F. Widal, at the Cochin Hospital, Paris. Drs. Marfan, Sicard and Georget have also made similar observations on its appearance in pneumonia. French, writing on pneumonia, says (*Practice of Medicine*, p. 125): "Meningitis, attributed to the migration of the pneumococcus, is encountered during the height of the fever in some cases. It usually affects the cerebral cortex, but is much more easily recognized when it attacks the base of the brain. It is then indicated by

severe headache, sluggish response, or unequal dilatation of the pupils, rigidity and retraction of the neck, with a tendency to delirium or stupor." French does not mention the appearance of the Kernig sign in cases of pneumonia which are complicated with meningitis. An editorial writer in *Le Bulletin Medical de Quebec*, Septembre, p. 44, says: "The Kernig sign is found in all cases of irritation or lesion, more or less deep or more or less extensive of the meninges. The absence of this sign does not permit us to exclude the possibility of irritation or lesion of the meninges. It is valuable solely by its presence (Roglet, Th. Paris, 1900). Kernig's sign has been met with outside meningitis, in meningeal hemorrhage (Widal) and in typhoid fever. To-day, it takes its place in the clinical picture of pneumonia, and shows how easily the nerve centres may be attacked by the pneumococcus."

J. J. C.

Disorders of Cardiac Function Observed in the Nasal Passages.—In *Deutsche Militar Zeitsch.*, September, 1903, p. 586, Dr. Heyse shows that two different forms of cardiac trouble may take their point of departure from the nasal cavities: (1) The reflex neuroses, which originate in the nasal mucous membrane, and are well known to practitioners; (2) cardiac disorders, resulting from narrowing of the nasal cavity, which are only exceptionally mentioned in medical literature. The last-mentioned disorders show themselves particularly after violent physical exercise, forced marches and races, while the former possess the distinctive character of appearing when the subject is in a state of repose, even when lying down, as in attacks of tachycardia, palpitation of the heart, or precordial distress. The cardiac disorders to which Dr. Heyse alludes are met with in cases of hyperplasia of the turbinated bones, and in deformity of the nasal septum. When these initial lesions become chronic a hypertrophy of the myocardium, accompanied by functional insufficiency, may result. The pathogenesis of these pathological phenomena is interpreted in different ways. In this connection, one thing alone appears to be demonstrated up to the present time, and that is that mouth-breathing cannot replace breathing through the nose, which is indispensable for the perfect working of the functions of the lungs and the heart.

Why Children Like Sweets.—Why are children so fond of sugar, farinaceous food, and potatoes? Why are some children fond of substances which are apparently indigestible, such as clay, lime, coal, and chalk? Dr. Borissoff undertakes to answer these questions in the *Russian Medical Journal*, Vratsh. He thinks children like sugar and farinaceous food, because, on account of their active movements, they require respiratory food. These foods play a double part in the nutrition of children. They make up for the loss of heat, which in children is greater than in adults; they make up for the wear and tear of the muscles, which is proportionately greater in them than in adults. In coal, clay and lime children find iron, lime and salts requisite for the building up of their tissues. To show the justice of these views, Dr. Borissoff made the following experiments: Cocks and hens were enclosed separately in cages in which oats had been put, as well as portions of phosphate and carbonate of lime in saucers. The cocks did not touch the lime; but the hens took about one gramme a day per capita. Dr. Borissoff thinks that the taste of hens for lime depends on the same reasons as the love of children for sugar. Hens, which lay eggs, require salts of lime for the formation of the shell of the egg, so that in picking lime they obey a natural instinct. Cocks, which do not lay eggs, do not touch lime.

The Sterilization of Catheters.—Dr. Goldberg, in *Centralblatt für Harn und Sexual Organe*, 1903, p. 451, reports the results of a careful and minute work done in order to obtain positive data as to the sterilization of catheters. He concludes that exposure to the vapors of formalin for twenty-four hours will sterilize a catheter of large calibre, but not one of the smaller kind. Steam at 212 degrees F. gives excellent results, but the surest and most trustworthy procedure is to immerse the catheters in boiling water for from five to ten minutes.

The Etiology of Typhoid Fever.—Dr. Schuder reports on the etiology of typhoid fever in *Zeitschr. für Hyg. und Inf.*, t. xxxviii. pp. 342-352. He says in substance: Although the agent by which typhoid fever is propagated and its method of operating are well known, carefully prepared statistics of epidemics of typhoid fever, showing exactly how the disease is propagated, seem to be lacking. Dr. Schuder endeavors to supply the deficiency and publishes a table of 650 cases of epidemic typhoid

fever. In 70 per cent. the vehicle of the disease was water, in 17 per cent. milk, in 3 1-2 per cent. foods of all kinds, and in 9 1-2 per cent. other factors.

PERSONALS.

DR. OSKAR KLOTZ, a graduate of Toronto University, and until recently house surgeon at the Ottawa Isolation Hospital, has been appointed to the fellowship of pathology at McGill University.

BREFNEY RALPH O'REILLY, M.D., C.M. (gold medallist, 1903), passed successfully the written and oral exams. in midwifery and gynecology, held in London in October, for the joint degree L.R.C.P. (Lond.) and M.R.C.S. (Eng.). Dr. O'Reilly is taking a practical course in University College Hospital, London, and intends taking a course at the Rotunda, Dublin, also.

MR. WILFRID P. WESTERN, 6 Glen Road, Toronto, about a year ago commenced to do massage work in the city, and has met with the support of many practitioners. He is certainly an expert at his work, having not only the natural facility for it, but possesses correct hands, and has a wonderful grip for muscle kneading. He is versed in the Battle Creek Sanitarium and German methods, having had training under a Dresden physician for a year and a half, during which time he studied both anatomy and physiology. Mr. Western is a non-loquacious manipulator, and requires his patient during operation not only to rest his brain by closing his eyes, but to, of course, relax all of his muscles. Mr. Western was in charge of the Men's Massage Clinic at the Boston Dispensary for six months in 1902, and holds a most complimentary certificate from that institution.

DR. JOHN C. MITCHELL, of the Toronto Asylum staff, has been appointed by the Ontario Government medical superintendent of the new Provincial Epileptic Hospital now under course of erection at Woodstock, which, it is expected, will be completed early next year. The appointment has been made now to give the superintendent an opportunity of visiting some of the best institutions in other countries before it is necessary to under-

take the duties of the opening of the new hospital. Dr. Mitchell will be allowed leave of absence from his present position from time to time during the coming winter to enable him to better equip himself with the full knowledge and experience to be gained by visiting similar institutions on the continent and in the Old Country. He will at his own expense spend three months in Europe gathering information as to the most modern methods of treatment for epileptic patients. Dr. Mitchell has been connected with the Toronto Asylum for over two years, and is a past president of the Ontario Medical Association.

ITEMS OF INTEREST.

Polk's Medical Register.—The eighth revised edition of this well-known work is now under way, and will appear in due time. Send for descriptive circulars, and do not be deceived by imitators. Polk's Medical Register and Directory has been established sixteen years. R. L. Polk & Co., Publishers, Detroit, Mich.

The Daily Medical Journal will be published January 1st, 1904. We need a physician as staff correspondent in every town in this Province, to supply us with scientific, social, institutional and personal news, and will pay regular newspaper rates for this service, with instructions, stationery and badge free. Address, Mr. J. Antonowitsch, 154 East 72nd Street, New York, N.Y.

Myopia and School Life.—Examinations of over 200,000 pairs of eyes and careful tabulation of the results in the Boston public schools show that nearly all children enter the primary schools with normal eyes. In the higher grades one-fourth of the pupils are myopic, and in universities this increases until from 60 per cent. to 70 per cent. of the students are myopic. In other words, nearsightedness increases steadily from the lower to the higher grades, and in exact proportion to the length of time devoted to the eyestrain of school life.—*Annals of Gynecology and Pediatrics*, Boston, Mass., May, 1903.

A Private Ambulance.—With commendable business foresight, the F. W. Matthews Co., 457 Queen Street West, Toronto, have installed a private ambulance, which they place at the disposal of the profession. The company are prepared to answer calls at any hour, day or night, for the removal of cases (any but contagious) from the home to the hospital, or *vice versa*. So long as they are within the city limits the charge is but \$2.00 per call, and for outside the city limits the charge is in proportion. The ambulance is very handsome and is in every respect up-to-date. It runs on rubber tires, is electrically lighted, carries an emergency kit, and is furnished with a pneumatic mattress.

Death of Dr. D. S. Oliphant, of Toronto.—Dr. David Sewell Oliphant, who when he retired three years ago was the oldest active practitioner in Ontario, died November 13, in his 88th year. He was born at Keene, N.H., and spent the early part of his life in New Orleans. In that city, during the yellow fever epidemic of 1860, he won an enviable reputation by his successful treatment of those afflicted with the disease. He lost his property in the Civil War, and nearly forty years ago came to Toronto, where he lived until his death. He was widely known as a homeopathist. He was married in 1847, and his wife survives, with two daughters, Mrs. William Galbraith and Mrs. Gallagher, both of Toronto. The funeral was private.

Ontario Medical Library.—The Executive Committee of the Ontario Medical Library Association held two meetings last month to discuss a plan of the association for obtaining a suitable building to establish a library. We understand that a house in Queen's Park is in view, and all the current medical journals and the most recent medical books will be on file there. A medical reference and circulating library will also be established. The Toronto Medical, Toronto Clinical and Toronto Pathological Societies will hold their regular meetings in the new building. The committee in charge of the matter consists of Dr. J. F. W. Ross, President, and Dr. H. J. Hamilton, Dr. A. A. Macdonald, Dr. H. T. Machell, Dr. J. T. Fotheringham, Dr. W. J. Greig, Dr. H. B. Anderson, Dr. H. A. Bruce, Dr. R. A. Reeve, Dr. N. A. Powell, Dr. R. A. Pyne and Dr. A. McPhedran. The committee will meet again to finally decide the matter this month.

Genuine Hygiene in the Public Schools.—It is refreshing to realize that educators and those interested in educational methods are at length beginning to realize the importance of having hygiene taught in the public schools from the standpoint of the sanitary scientist rather than of the faddist with regard to some presumed evils. There are good grounds for dissatisfaction with the present methods of teaching hygiene. As suggested by Dr. Putnam, of Providence, R. I., in her paper on the "Department of Hygiene and Public Schools," in order to secure the proper teaching of hygiene it will be necessary to secure special training on the part of teachers in this branch, and also to commit the management of the department in the high schools of our cities, at least, to some one who has not only theoretic, but practical, knowledge of this progressive and important subject.—*American Medicine.*

Jackson Health Resort.—The attention of Canadian physicians is called to this institution as one that offers exceptional advantages and attractions. Under personal care of regularly edu-

cated and experienced physicians. Location in a hillside park overlooking the beautiful Genesee Valley country. Pure spring water, nearly identical with the noted springs of Contrexeville, in France. Clear, dry atmosphere, free from fogs and malaria. Thorough drainage and sewerage systems. Elegant fire-proof main building, and twelve cottages, steam-heated and designed to meet every requirement of invalids or seekers of rest and quiet. All forms of fresh and salt-water baths, electricity, massage, Swedish movements, inunction, etc., scientifically administered. Especial provision for quiet and rest, also for amusement and regular out-door life. Freedom from taxations of fashionable life, and from excitements and temptations of popular resorts. Electric bells, electric lights, safety elevator, library, daily papers, open fires and every appliance for comfort, health and good cheer. It is on the Delaware, Lackawanna and Western R. R. from New York or Buffalo, without change. Jackson Health Resort was established in 1858.

"The New York World" Thrice-a-Week Edition.—The *Thrice-a-Week World* long ago established itself in public favor, and it is now recognized as the strongest publication of its kind in the United States. Advertisers and publishers seeking clubbing combinations—and they know best—universally testify to this. It is widely circulated in every State and Territory of the Union, and even in remote South Africa and on the goldfields in the deserts of Australia. These are the things that tell. Next year we have the Presidential campaign, in which all Americans are deeply interested. Already the issues are being discussed, and the two great parties are preparing for the first moves. You will not want to miss any details, and if you subscribe now your year's subscription will cover the campaign from beginning to end. The *Thrice-a-Week World* is absolutely fair in its political news. Partisan bias is never allowed to affect its news columns, and Democrat and Republican alike can obtain in its pages truthful accounts of all the great political contests. In addition to all the news, the *Thrice-a-Week World* furnishes the best serial fiction, elaborate market reports and other features of interest. The *Thrice-a-Week World's* regular subscription price is only \$1 per year, and this pays for 156 papers.

Occasional Christian Science Treatment.—*Ethel* (who has been eating green apples): Oh, my! Mother, I have cramps. *Mother* (who believes in Christian Science): My love! I tell you that you have not got cramps. *Ethel*: But, ma, these cramps are just awful. *Mother*: There now, dear, just think you've not got cramps, and you'll soon be well.

Selected Articles.

VERONAL, A NEW HYPNOTIC.

BY DR. ARONHEIM, OF GEVELSBERG.

SEVERAL weeks ago I received a quantity of veronal (diethylmalonylurea) from E. Merek, of Darmstadt, with the request to use it in suitable cases and test its hypnotic property. The supply was employed in the following cases:

1. Mrs. S. L., 63 years of age, was suffering from anemia, anorexia and insomnia in a high degree, in consequence of carcinoma of the stomach. The sleeplessness was her main complaint; hence she begged for a powder. On June 4 she received 0.5 Gm. (7 1-2 grn.) veronal; directed to take it in the evening dissolved in half a cup of peppermint tea. After this and the subsequent powders, she slept well for several hours, and felt considerably refreshed and strengthened in the morning.

2. C. S., 75 years old, was afflicted with exudative erythema of the face, head and back of the neck, the itching of which disturbed sleep very much. Besides an ointment consisting of zinc oxide 3, bismuth subnitrate 3, anthrasol 5, and lanolin to make 50, he received methylatropine bromide 0.003, and veronal 1 Gm. (15 grn.). He slept well for several nights after taking this powder.

3. Mrs. E. R., aged 55 years, had suffered since arriving at the climacteric with simple melancholia. She said she slept at most two and a half hours. After 0.5 Gm. doses of veronal, according to her own statements and those of her daughter, she slept about five hours; and in the morning she was always well save for a slight mental dulness, and rejoiced over the nightly rest.

4. Miss L., 60 years of age, had had severe injury to a finger of the right hand six weeks before, necessitating amputation of the right middle finger. Owing to severe nocturnal pain in the wounded hand 1 Gm. veronal was prescribed; she slept soundly from 10 p.m. until 6 o'clock the next morning.

5. Mrs. J. B., 40 years of age, was afflicted, for three days, with violent febrile erysipelas of the head and face. The previous medical treatment had consisted of methylatropine bromide 0.002, phenacetin 0.5, ichthyol and anthrasol 3 each, mercury

bichloride 0.3, lanolin to make 30. On account of insomnia she received 0.5 Gm. veronal; as a result she had a good sleep for several hours.

6. A. T., 42 years old, had advanced phthisis. Slept well after taking a powder consisting of 0.002 methylatropine bromide and 0.5 Gm. veronal.

7. W. B., 56 years of age, in consequence of concussion of the brain and left-sided intracranial hemorrhage was suffering from aphasia and paresis of the right upper and lower extremities, and showed great motor unrest. After 1 Gm. veronal there was deep, sound sleep, and an improved general condition in the morning.

S. R. H., 54 years of age, was afflicted for months with polyneuritis chronica alcoholica; exceedingly violent pains in the atrophic peroneal musculature of both legs, and in consequence insomnia. He received three 1 Gm. powders of veronal, and slept for several hours after each.

9. D. v. B., 55 years old, received 1 Gm. veronal on account of insomnia attending bronchitis; slept in consequence from 11 o'clock in the evening till 6 o'clock in the morning.

10. W. B., 45 years of age, ill with catarrhal bronchitis of both lower lobes, received for the night cough methylatropine 0.002, veronal 0.5 Gm.; slept after it about five hours without being disturbed by coughing; the next morning he felt perfectly well.

11. F. H., 58 years old, was suffering from pulmonary phthisis. On request he received as a hypnotic powder methylatropine bromide 0.002 and veronal 0.5 Gm.; slept four hours without coughing, and had no unpleasant after-symptoms the following morning.

12. The 45 year old Miss M. K. was suffering for weeks with general pruritus; could not sleep at night owing to intolerable itching; besides an ointment of anthrasol 10, tincture benzoin q. s., lanolin and vaselin equal parts to make 50, she received methylatropine bromide 0.002, veronal 0.5 Gm., and after each powder slept for several hours.

13. F. K., 25 years of age, had the same ailment, and received the same treatment, with the same success.

14. E. K., 8 years old, was affected with bronchitis of both lower lobes posteriorly; received for the night, which was disturbed by the irritating cough, methylatropine bromide 0.0005, veronal 0.2 Gm. (3 grn.), with good result.

15. J. K., 5 years of age, suffering for three years with perityphlitis, slept well after taking powders consisting of methylatropine bromide 0.0005 and veronal 0.2 Gm., without the appearance of untoward accessory effects.

16. W. B., 20 years old, suffering from insomnia caused by

a tendinous felon of the right middle finger, on request for a hypnotic received veronal 1 Gm. Returned with the statement that he had slept well again for a week.

Since the above favorable experience I have prescribed the hypnotic in various cases of insomnia in men, women, and children, in doses of 1, 0.5, and 0.2 Gm. (15, 7 1-2 and 3 grn.) often in combination with methylatropine bromide), and in every case the results were favorable. Unpleasant by-effects were not observed in any patient; on questioning, every one remarked that he felt rested and could with a clear head attend to his usual work in the morning, provided bed-riddenness did not prevent so doing.

I can accordingly join in the opinion of the other physicians who have had experience with veronal, that this hypnotic is an excellent acquisition to our materia medica.

HOLD FAST TO THAT WHICH IS GOOD—IN THERAPEUTICS.

BY J. J. DOOLEY, M.D., NEW YORK.

THE combination of albumen with urine is, in every case, evidence of pathological conditions.

This fact impresses upon the mind of the progressive physician of to-day the further and additional fact that the kidney is a more important factor in diagnosis than the pulse.

While the latter may indicate certain febrile movements the former enables the physician to discover the cause or causes of such movements, and thus enables him to begin at the beginning in his efforts to eradicate the disease with which he has to contend.

It is for this reason the late Professor Gross, in closing his lectures on surgical pathology, always admonished his students to "watch the kidneys from start to finish."

Flush the kidneys for the health of the body as you would flush the sewer for the health of a city or community.

This has been my motto since I began the practice of medicine, and I have followed it with much satisfaction to myself and my patients.

While I seek the remedies suited to this purpose in the pharmacopeia, I more frequently resort to nature's remedy—Buffalo Lithia Water—which I find better suited to the majority of cases than any other therapeutic agent with which I am acquainted.

In hyperemia of the kidneys, either active or passive, especially that form following interstitial pneumonia in which there

is marked destruction of the capillaries in the pulmonary parenchyma, this water produces beneficial results which are truly amazing. Every trace of albumen quickly disappears, and the normal specific gravity of the urine is promptly restored without hydremia or thinning of the blood serum (dropsy).

I have found Buffalo Lithia Water equally effective in acute parenchymatous nephritis, especially when due to pregnancy or other functional derangements.

It also affords much relief in chronic nephritis, nephrophthisis, pyelitis and renal cirrhosis. In fact it is my habit to prescribe Buffalo Lithia Water in all stages of Bright's disease.

I find that it reduces febrile disturbances in the earlier stages of the disease, and insures rest and physical comfort. As the disease progresses it seems to prevent the mental depression or melancholia usually present in this trouble.

The prompt and permanent benefit following the liberal administration of Buffalo Lithia Water in malarial hematuria is truly remarkable, the absence of both blood cells and albumen being noted within a few hours.

Buffalo Lithia Water is not only a prompt eliminator of extraordinary potency in the class of kidney ailments briefly referred to, but its solvent powers in nephrolithiasis, or renal calculus and stone in the bladder, are equally great, and have long been recognized by leading physicians and surgeons throughout the civilized world.

I prefer, however, to speak of it first as a preventative in the latter class of ailments. This property in this water seems to be due to the fact that it neutralizes and eliminates uric and oxalic acids wherever found in the human system, and chemists are agreed that these elements are essential to the formation of stone in the bladder.

The amorphous renal gravel—that is, the powdery sediments which constitute the starting-point and the basis of what is ordinarily called renal gravel, is rapidly dissolved by Buffalo Lithia and discharged without discomfort via the normal channels before it has had time to assume a definite concrete form or shape.

To accomplish this result, I administer this water *ad libitum*, and in quantity limited only by the stomach capacity and comfort of the patient.

That Buffalo Lithia Water is the most powerful solvent of organized stone in the bladder, known to the medical profession, is an incontrovertible fact and one known to the profession for more than half a century. Whatever be the character of the stone in the bladder—whether a phosphate, an oxalate or a urate—it attacks it with equal energy.

It seems to dissolve the acid-base of the stone which at first

becomes quite porous and then disintegrates or falls to pieces, and the resulting detritus or debris is finally expelled from the bladder.

This theory is based on the fact that this water acts with extraordinary vigor on uric, oxalic and phosphoric acids, whether alone or in combination with other acids or basic salts.

It also attacks gall-stones with much force and aids in their elimination and expulsion from the alimentary tract.

In nervousness and insomnia due to brain fag or defective metabolism, I have found Buffalo Lithia Water of decided value, also in alcoholism and morphinism where the secretions are defective or totally suspended. In this class of ailments I attribute its good results to its property of removing from tissues all dead cells and other waste products whose presence is undoubtedly a bar to the proper performance of many of the normal functions.

I have also found Buffalo Lithia Water of decided therapeutic value in certain forms of stomach indigestion where there are sour eructations, and also in intestinal indigestion when the generation of gases is a marked and disagreeable symptom. In fact, I am firmly of the opinion that the good work of this valuable water begins in the stomach where it neutralizes morbid acid secretions, and paves the way to improve digestion and assimilation.

This accounts in a measure for its value as a preventative of uremia and its sequelæ—such as nervousness, epileptic-like convulsions, maniacal manifestations and coma.

In cystitis or catarrhal conditions of the urinary bladder Buffalo Lithia Water seems to exercise a specific action by allaying all irritation and inflammation, and thus securing lasting relief and comfort for the patient.

In conclusion I would impress upon the minds of the physicians two important points in connection with this water: first, get the genuine Buffalo Lithia Water; second, see that your patients drink it regularly and freely.

LACTO-GLOBULIN AS A THERAPEUTIC AGENT.

THE following are some interesting notes as to the use of Lacto-Globulin. They serve to give an idea of the wide field covered by this preparation:

Dyspepsia (Excess of chlorhydric acid).—Woman, aged 52, ill for two months. Treated by milk diet, bismuth. Some improvement. On a diet of Lacto-Globulin, well in five days; ordinary diet resumed.

Rheumatic Gout (With valvular heart trouble).—Female, aged 50, much emaciated. Lacto-Globulin only food retained by stomach. It was administered alone during fifteen days. Ordinary feeding gradually resumed. Weight increased to normal, and health returned to such an extent that she was able to leave the house for the first time in seven years.

Gastritis (Alcoholic).—Male, aged 32. Nothing retained by stomach. On diet of Lacto-Globulin gastric irritation subsided.

Phthisis (advanced case).—Persistent vomiting. After all diet and remedial agents were exhausted without result, patient given Lacto-Globulin, which was retained, and afterwards given with the most beneficial results.

Pneumonia (senile).—Male, aged 84. Lacto-Globulin only food taken for eight days, and its use continued during a period of sixty days. Strength maintained owing to the fact that patient was enabled to take a sufficient daily supply of albumen to prevent asthenia from ensuing.

Rheumatism (Acute articular).—Boy, aged 13, temperature 103 at onset, varied between 102 to 103 on milk diet and salicylates. On sixth day placed on exclusive diet of Lacto-Globulin. In thirty-six hours temperature normal. Improvement permanent.

Diarrhea (in phthisis).—Use of Lacto-Globulin controlled it in three cases.

Diarrhea (Chronic).—(a) Woman aged 31, has had diarrhea for twelve years. Is much benefited by use of Lacto-Globulin. (b) Miss K., has suffered from attacks for last eight years. Diarrhea becomes impossible to control. On occurrence of attacks takes Lacto-Globulin, when it quickly ceases.

Chloro-Anemia.—Two cases recovered in sixty days without any other form of treatment.

Anemia.—Child, aged 4, underweight and weak. With Lacto-Globulin appetite improved and weight increased.

Atrophy (Infantile).—Child, aged eight months. By persistent use of 1-20 grain hydrarg. chlor. mite and diet of Lacto-Globulin, child recovered.

Rectal Feeding.—According to Latschenberger, von Voit, Bauer, Eichhorst and Czerny, albuminates in perfect solution are absorbed without being transformed into peptone. According to Gauthier, Para-Globulin in solution has the property of passing rapidly by exomosis through animal membranes such as those of the bladder and intestines. This property is not common to ordinary albumen or analogous substance. Lacto-Globulin possesses this quality and is particularly adapted to rectal feeding. It renders this method easy and effective, and does not tire the intestines.

HOW DROWNING FEELS.

"I AM collecting statistics," said a clerk in the coroner's office, "on the sensations of drowning persons. From would-be suicides, from shipwrecked sailors, from old books and magazines, I have gathered a great number of facts, all pointing to the conclusion that drowning is always a pleasant sensation.

"Admiral Beaufort, when a boy, came near drowning. He fell overboard from a dock, and, as he couldn't swim, he sank and for five or six minutes was under the water. He describes his sensations in this way:

"From the moment that all exertion had ceased a calm feeling of the most perfect tranquillity succeeded the previous tumultuous sensations—it might be called apathy, certainly not resignation, for drowning no longer appeared to be an evil. I no longer thought of being rescued, nor was I in any bodily pain. On the contrary, my sensations were now of a pleasurable sort, partaking of that dull but contented sort of feeling which precedes the sleep produced by fatigue. Though the sensations were thus deadened, not so the mind; its activity seemed to be invigorated in a ratio which defies all description, for thought rose after thought with a rapidity of succession that is not only indescribable, but probably inconceivable by anyone who has not himself been in a similar situation.'

"Another man," continued the coroner's clerk—"this chap had tried suicide and failed—told me that after the first moment of struggle and revolt that begins drowning he heard church bells ringing and was amazed at the sense of comfort and peace that he had. He seemed to be floating through space. In the blue sky forms clothed in white darted, flashing their golden wings. Then suddenly a great darkness fell, and the man awoke to the horrors of resuscitation. For they were rolling him, it seems, upon a barrel.

"I have statistics of twenty cases of drowning, and in each case the sensations were pleasant."—*Philadelphia Record*.

A Roof-Garden Dormitory.—A roof-garden dormitory is to be installed at the City Hospital, Philadelphia. The idea is that of Dr. Martin, the new Director of Health and Charities, who thinks that the carrying out of such a plan will be the means of giving those suffering from tuberculosis nine hours more of each clear day in which to breathe the open air. In the daytime the cots will be removed, and the roof, with flowers and shrubbery, will be used as a promenade and recreation ground for the consumptives.—*Med. Record*.

The Physician's Library.

BOOK REVIEWS.

The Practical Medicine Series of Year-Books. Comprising ten volumes on the year's progress in medicine and surgery. Issued monthly, under the general editorial charge of GUSTAVUS P. HEAD, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume VIII., materia medica and therapeutics, preventive medicine, climatology, suggestive therapeutics, forensic medicine. Edited by Geo. F. Buller, Ph.G., M.D.; Henry B. Favell, A.B., M.D.; Norman Bridge, A.M., M.D.; Daniel R. Brower, M.D.; Harold N. Moyer, M.D. July, 1903. Volume IX., physiology, pathology, bacteriology, anatomy, dietionary. Edited by W. A. Evans, M.S., M.D.; Adolph Gehrmann, M.D., William Healy, A.B., M.D. Volume X.; Skin and Venereal Diseases, by William L. Baum, M.D., Professor of Skin and Venereal Diseases, Chicago Post-Graduate Medical School; Nervous and Mental Diseases, by Hugh T. Patrick, M.D., Professor of Neurology in the Chicago Polyclinic, Clinical Professor of Nervous Diseases in the North-Western University Medical School. With the collaboration of Charles L. Mix, A.B., M.D., Professor of General Medicine in the Post-Graduate Medical School of Chicago. Chicago: The Year-Book Publishers, 40 Dearborn Street. August, 1903.

These volumes are uniform in size and binding, and average from 250 to 300 pages. They are nicely arranged, and are of a convenient size to read and handle.

Volume VIII. devotes 154 pages to materia medica and therapeutics, 53 to preventive medicine, 39 to climatology, and 69 to suggestive therapeutics and forensic medicine. We were very much pleased with this volume, especially with the section on materia medica and therapeutics. The extracts are full enough to give one all that is required on the drugs or remedial measures. Many of the newer remedies and alkaloids receive notice, but the old standard remedies receive a good deal of attention. The name and date of the journal from which the extract is taken is given at the bottom of the page, and proves very valuable to those wishing a more extensive reference. In suggestive therapeutics, we find a reference to an article in the CANADIAN JOURNAL OF MEDI-

CINE AND SURGERY by our old friend, Dr. J. H. Richardson, on Christian Science.

In Volume IX. we were rather surprised to find that Forbes (*Journal of Pathology and Bacteriology*, May, 1903) found diphtheria bacilli in the discharges from the ears in all of twenty patients who had otorrhea from scarlatina. This volume has some good illustrations of intestinal parasites and their eggs. The hook-worm—the newly found parasite of the Southern States—receives especial notice.

In Volume X. 97 pages are devoted to skin and venereal diseases, and 126 to diseases of the nervous system.

We congratulate the publishers on the neat appearance of these volumes, as well as on the character of the arrangement and selections, and feel we can recommend them to our friends.

W. J. W.

A Text-Book of the Practice of Medicine. Designed for the use of students. By JAMES MAGOFFIN FRENCH, M.D., Lecturer on the Theory and Practice of Medicine, Medical College of Ohio; Attending Physician, St. Mary's Hospital; Consulting Physician, St. Francis Hospital for Incurables, Cincinnati. Illustrated by ten full-page plates and fifty wood engravings. New York: William Wood & Co. Canadian Agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

This excellent manual is largely intended for the use of students of medicine. In the first 43 pages reference is made to the principles of medicine, and descriptions are given of the various pathological processes occurring in diseases. The main portion of the work is devoted to the description of the various diseases treated in works on the practice of medicine.

In Part III. on Clinical Methods of Examination, reference is made to chemical and microscopical examinations applicable to clinical study. A useful work, and one which reflects great credit on the author.

J. J. C.

A Text-Book of Operative Surgery. For Students and Practitioners. By WARREN STONE BICKHAM, Phar.M., M.D., Assistant Instructor in Operative Surgery, College of Physicians and Surgeons, New York, etc. 559 illustrations. Philadelphia, New York, London: W. B. Saunders & Company, publishers. Canadian Agents: J. A. Carveth & Co., Toronto and Montreal.

A refreshing presentation to the reader of the best *technic* of modern surgeons, in the operations mentioned in this work, together with a brief summary of the surgical anatomy of the structures involved, is among the striking features of this book. There is a good deal of horse sense in combining the two, for

while one may urge against it the well-nigh thread-bare argument of "spoon-feeding," yet there is much to be said in its favor on behalf of the over-worked student. While it may be easy for him to digest each department of his work, his busy brain does not get sufficient intervals of rest in which mental assimilation is able to go on. In a book like this, however, it is a case of "assimilation made easy." The arrangement followed is in each class of operations as follows: Surgical anatomy, surface anatomy, surgical considerations, instruments required, the operation and its general description, preparation of the patient, position, etc., and then the operation in detail. We should think the work will find a place among the many already on the market, and that it will fill that place admirably. The bookmaking and the illustrations are excellent, for which the publishers are to be congratulated.

S.

General Pathology. By DR. ERNST ZIEGLER. Tenth revised edition. Translated and edited by Aldred Scott Warthin, Ph.D., M.D. Royal, 8vo, 784 pages, sumptuously illustrated by 586 engravings in black and many exquisite colors. New York: Wm. Wood & Co. Canadian agents: Chandler & Massey Limited, Toronto and Montreal. 1903. Muslin, \$5 net; leather, \$5.75 net.

Ziegler's "Pathology" needs no introduction to the medical profession, as for over two decades it has been looked upon as one of the foremost text-books on the subject. The tenth edition is in many respects superior to its predecessor, as the process of revision has been extended into many of the chapters, and the entire work reflects to a nicety the high standing, as a pathologist and scientist, of the author. The illustrations are particularly good, each being a masterpiece in itself. We can safely say that the tenth edition of Ziegler represents one of the most important achievements of the nineteenth century in the field of general pathology and pathological anatomy.

Clinical Examination of the Urine and Urinary Diagnosis. A Clinical Guide for the use of Practitioners and Students of Medicine and Surgery. By J. BERGEN OGDEN, M.D., formerly Instructor in Chemistry, Harvard University Medical School, Boston; Assistant in Clinical Pathology, Boston City Hospital, etc. Second revised edition. Handsome octavo volume of 418 pages, illustrated, including 11 plates, 9 of them in colors. Philadelphia, New York, London: W. B. Saunders & Company. Canadian Agents: J. A. Carveth & Co., Toronto and Montreal. 1903. Cloth, \$3.00, net.

Here is a work eminently in demand, since it combines the chemistry and clinical aspects of the urine; the latter are gener-

ally only obtainable by an extensive search through the larger works on medicine, surgery and pathology. This second revised edition is divided into two parts as was the first edition. It contains many important changes, especially in Part I. in connection with the determination of urea, uric acid and total nitrogen; and the subjects of cryosecopy and beta-oxybutyric acid have been given a place. In Part II. special attention has been given to differential diagnosis of disturbances and diseases of the kidney and urinary passages, both local and general, medical and surgical, a brief enumeration of the prominent clinical symptoms of each disease; and, finally, the peculiarities of the urine in certain general diseases of the body. The author has spared neither pains nor time in making this book a complete clinical guide to urinary diagnosis for both students and practitioners.

W. H. P.

Practical Gynecology. A comprehensive text-book for students and physicians. By E. E. MONTGOMERY, M.D., LL.D., Professor of Gynecology, Jefferson Medical College; Gynecologist to the Jefferson Medical College and St. John's Hospitals; Consulting Gynecologist to the Philadelphia Lying-in Charity, and the Kensington Hospital for Women. Second revised edition, with 539 illustrations, the greater number of which have been drawn and engraved specially for this work, for the most part from original sources. Philadelphia: P. Blakiston's Son & Co. Canadian agents: Chandler & Massey Limited, Toronto, Montreal, and Winnipeg. 1903.

It is but three years since the author first placed his work in the hands of the profession, so that he should feel encouraged that his labors have been endorsed sufficiently to necessitate the re-writing of his book in so short a period. We took occasion to congratulate Dr. Montgomery on the first edition of his volume, and after looking through the second edition, we feel that he is deserving of renewed praise, as he has succeeded in placing at the disposal of his confreres a thoroughly complete treatise on gynecology, and one that for years to come should occupy a foremost place in that science.

Handbook of Diseases of the Ear for the Use of Students and Practitioners. By RICHARD LAKE, F.R.C.S. (Eng.), Surgeon Royal Ear Hospital, Lecturer on Practical Otology, Medical Graduates College. Crown octavo; pp. 232. Illustrated. London: Balliere, Tindall & Cox. 6 shillings.

Here is the medical book I have been looking for for years—one without any introduction, or any preface, or apology for being on the earth. Presumably this book was written because

the author felt that he had something to say worth saying, or because his publishers made it worth his while. Whatever the reason the book needs no apology. If you want a readable work on diseases of the ear—not too long and not too short—and have six shillings, or the equivalent thereof, trade the shillings for the book, and you will say all the good things about it, which I am tempted to say.

J. M.

Manual of Medicine. By THOMAS KIRKPATRICK MUNRO, M.A., M.D., Fellow of, and Examiner to, the Faculty of Physicians and Surgeons, Glasgow; Physician to Glasgow Royal Infirmary, and Professor of Medicine in St. Mungo's College; formerly Examiner in the University of Glasgow, and Pathologist to the Victoria Infirmary. Philadelphia and New York: W. B. Saunders & Co. London: Balliere, Tindall & Cox. Canadian agents: J. A. Carveth & Co., Toronto.

Munro's "Manual of Medicine" has been written in order to provide students with a fully up-to-date volume for their purposes while at college, and yet is hardly intended for use by medical practitioners, as it does not cover sufficient ground for the latter purpose. What we have stated on several occasions in the past applies particularly well to this volume, viz., that too many of the so-called students' manuals published in recent years have not been sufficiently far advanced, and altogether too cursory in character to enable a student graduating in medicine to have the knowledge he should possess in order to pass the necessary examination in practice of medicine. Munro's "Manual of Medicine," on the other hand, has the advantage of being a more complete treatise on the subject of medicine than most manuals are, and yet does not attempt to encroach on the field held by the regular text-book.

A Text-Book of Obstetrics. By BARTON COOKE HIRST, M.D., Professor of Obstetrics in the University of Pennsylvania. Fourth edition, enlarged and thoroughly revised. Handsome octavo, 900 pages, with 746 illustrations, 39 of them in colors. Philadelphia, New York, London: W. B. Saunders & Company. Canadian Agents: J. A. Carveth & Co., Toronto, 1903. Cloth, \$5.00, net; sheep or half morocco, \$6.00, net.

Many changes have been made in this edition in order to present the latest teaching in the various branches of the subject. Special attention has been given to the diseases of the genital organs, associated with or following child-birth. This is an important feature which will be of great value to the conscientious obstetrician who always desires to leave his patient in the best possible condition after the trying ordeal of labor. The illustra-

tions are excellent, many of the old ones having been replaced in this edition by newer and better ones, while a large number that are entirely new have been added. Numerous references are given to articles and books which the author found most helpful, or which have been epoch-making in the history of obstetrics.

A. E.

Nose and Throat Work for the General Practitioner. By GEORGE L. RICHARDS, M.D., Fellow American Laryngological, Rhinological and Otological Society; Fellow American Otological Society; Associate Editor *Annals of Otology, Laryngology and Rhinology*; Otologist and Laryngologist Fall River Union Hospital, Fall River, Mass.

This is one of the most satisfactory small works on the nose and throat which have come into our hands. Not too elaborate, and not too brief, it is intended as a working guide for the student and the practitioner who has had but little experience in this work. There are no long-winded dissertations on pathology, but it is replete with practical information, evidently based on personal experience, yet there is sufficient reference to the ideas and methods of others.

J. M. M.

The Medical News Visiting List—1904. Thirty patients per week. Philadelphia and New York: Lea Bros. & Co.

For nearly twenty years "The Medical News Visiting List" has been published, and during that time has rendered less laborious the task of book-keeping to many a practitioner. The 1904 list is an improvement upon any predecessor; the text portion having been practically all rewritten. The list is wallet shaped, pocket size and bound handsomely in grained leather; the paper being tough and suitable for either pen or pencil. The list is published in four styles, weekly, monthly, perpetual (undated, for thirty patients weekly per year), and another, undated, for sixty patients weekly per year.

W. A. Y.

The Pathology of the Typhoid Ulcer.—A very neat brochure under this caption was recently issued by the Arlington Chemical Co., of Yonkers N.Y. The three colored plates illustrating "Swollen Peyer's Patches," "Superficial Necrosis" and "Deep Ulceration" are so excellent as to make it worth while any physician sending for a copy.

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